

SOCIAL AND PSYCHOLOGICAL FACTORS AFFECTING FERTILITY

XIV. PREFERENCE FOR CHILDREN OF GIVEN SEX IN RELATION TO FERTILITY¹

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THE existence of preferences for children of given sex is evident not only from Biblical and anthropological literature but also from everyday experience. In some societies the preferences are heavily conditioned by culture. Thus in oriental agrarian societies, the higher value placed upon sons than daughters probably arises not only from presumed economic advantages of sons to parents but also from considerations of religion and social prestige. Although cross-cultural references to the subject may suggest stronger and more frequent desires for sons than for daughters, this preference is by no means universal. Sumner has stated "in all variations of the life conditions, in all forms of industrial organization, and at all stages of the arts, conjunctures arise in which the value of children fluctuates, and also the relative value of boys and girls turns in favor, now of one, now of the other."²

It is possible that within our own country the increasing urbanization of the population has been accompanied by a decrease in actual or assumed economic advantages of sons over daughters. If this is true, one might reasonably suppose that in our urban areas preferences for children of given sex tend to

¹ This is the fourteenth of a series of reports on a study conducted by the Committee on Social and Psychological Factors Affecting Fertility, sponsored by the Milbank Memorial Fund with grants from the Carnegie Corporation of New York. The Committee consists of Lowell J. Reed, Chairman; Daniel Katz; E. Lowell Kelly; Clyde V. Kiser; Frank Lorimer; Frank W. Notestein; Frederick Osborn; S. A. Switzer; Warren S. Thompson; and P. K. Whelpton.

The present report is based largely upon a previous treatment of the data in Clare, Jeanne E.: Preference Regarding the Sex of Children and its Relation to Size of Family. Master's Thesis, Department of Sociology, Faculty of Political Science, Columbia University, June, 1951, 36 pp. plus tables and charts (unpublished).

² Sumner, William Graham: *FOLKWAYS*. Boston, Ginn and Company, 1906, p. 312.

be simply personal preferences based upon considerations other than the economic.

The above is not to say that the existence of preferences regarding sex of children is less prevalent in urban than in rural areas of this country. On the contrary, it is possible that interest in the sex of prospective children is more pronounced among couples planning to have only one or two children than it is among couples expecting to have larger families as a matter of course. Certainly the writers know of no reason to suppose that prospective parents in the city are less interested than their rural counterparts in discussing whether they want the child to be a boy or a girl. It is recognized, of course, that discussion of the sex of the young hopeful frequently is only half-serious and that it often ends with the stock remark "We'll take the package whatever it is and we won't send it back."

The present paper provides some data on the prevalence, nature, and strength of parental preferences regarding sex of children among couples in the Indianapolis Study. Its chief purpose, however, is to present the analysis of data relevant to the hypothesis "Preferences regarding the sex of children affect the size of family."

Previous Studies. As far as can be determined, most of the previous studies in this area have been concerned more with the first-mentioned problems, i.e., a determination of the existence of preferences regarding the sex of children, than with the problem stated in our hypothesis. In fact, in one study by Winston³ and in another by Harper,⁴ the hypothesis being tested here is taken rather for granted and used as a basic assumption of the investigations. This assumption was that where a preference as to the sex of children existed the size of family would be limited. It was further assumed that there was a strong preference for males. It was reasoned by both investigators

³ Winston, Sanford: Birth Control and Sex Ratio at Birth. *American Journal of Sociology*, September, 1932, xxxviii, No. 2, pp. 225-31.

⁴ Harper, Marian: Parental Preference with Respect to the Sex of Children. Master's Thesis, Department of Sociology, University of Chicago, December, 1936 (unpublished).

that upon receiving a male child, families were less likely to have more children. Accordingly, a larger number of last-born children would be males. To test this, sex ratios were computed for the last-born children and for all children ever born. It was expected that if the hypotheses were valid there would be higher sex ratios for last-born children than for all children of the couples studied.

Winston's data related to 5,466 completed families in the *ABRIDGED COMPENDIUM OF AMERICAN GENEALOGY*. His working hypothesis was that for such an educationally, socially, and economically superior group the sex ratio at birth among children in these families would be directly affected by the desire for male children. He found that generally higher sex ratios prevailed for last-born children than for all children ever born. He also found that more two-child families had two sons than two daughters, and that of those with two children of opposite sex more had as the last child a son than a daughter. Winston concluded from these findings that the "prevalence of the desire for male offspring on the part of socially superior parents, together with their knowledge of methods of birth control, appears to be significant in relation to the high sex-ratio at birth of this selected group."⁵

Using the same method, Harper also found a relatively high sex ratio for the last-born children of families in *BURKE'S PEERAGE* and *WHO'S WHO IN AMERICA*. The main part of her investigation, however, centered on 11,937 families living in Wisconsin cities of 20,000 population and over in 1934 and meeting certain requirements.⁶ Her comparison of observed and "expected" sex ratios of last-born children indicated no consistent direction of possible sex preference except in the white-collar occupational group where the preference was toward males. Furthermore, she found none of the differences between sex ratios of last-born children and those of all children in the

⁵ Winston, *op. cit.*, p. 231.

⁶ Marriage took place between 1919 and 1923; marriage not terminated by death or divorce within ten years of marriage date; neither spouse previously married; wife not over 25 years of age at marriage and husband not over 30; and couple had at least one child within ten years of marriage date and no multiple births.

Wisconsin series to be statistically significant. She found, though, that the proportion of families with the first two children of opposite sex was higher in families that were limited to two children than in families with three children. Thus she concluded that the preference for children of both sexes is more prevalent than favoritism toward a given sex. It is recognized, of course, that this type of preference may result in desire for a boy if the couple already has a girl or girls and *vice versa*.

In his study of a group of officers in the United States Army Air Corps and their wives, Flanagan included a question regarding the effect upon the size of family "if predetermination of sex of children were made possible by medical science." About 89 per cent of the officers answering and 82 per cent of the wives answering stated that such a condition would have made no difference in their size of family or plans for additional children. About 11 per cent of the officers and 17 per cent of the wives replied that such a condition might have caused them to have one to three more children. Less than 1 per cent of either husbands or wives declared it would have meant one child less.⁷

Data for Present Study. The analysis presented in this paper is based upon data collected in Indianapolis mainly in 1941, as part of the Study of Social and Psychological Factors Affecting Fertility.⁸

⁷ Flanagan, John C.: A Study of Factors Determining Family Size in a Selected Professional Group. *Genetic Psychology Monographs*, 1942, xxv, p. 75.

⁸ The general purpose, scope, and methods of the Study have been described in detail in previous articles. The Study was conducted in Indianapolis in 1941 and the data for the present analysis relate to an adjusted sample of 1,444 "relatively fecund" couples with the following characteristics: husband and wife native white, both Protestant, both finished at least the eighth grade, married during 1927-1929, neither previously married, husband under 40 and wife under 30 at marriage, and eight or more years spent in a city of 25,000 population or over since marriage. Couples with these characteristics were located by means of a preliminary Household Survey of virtually all white households in Indianapolis.

For purposes of the Study, all couples with four or more live births were classified as "relatively fecund" regardless of other circumstances. Couples with 0-3 live births were classified as "relatively fecund" unless they knew or had good reason for believing that conception was physiologically impossible during a period of at least 24 or 36 consecutive months since marriage (24 for never-pregnant couples, 36 for others). Failure to conceive when contraception was not practiced "always" or "usually" during periods of above durations was considered "good reason" for such

The identification of the existence and direction of parental preferences regarding sex of children is based mainly upon "multiple-choice" replies of wives and husbands to several questions designed specifically to afford bases for classification by "preferences regarding sex of children." The form on which these questions appeared was filled out by the wife and husband separately, in the presence of the interviewer, usually at a pre-arranged evening appointment in the home of the couple.

Two questions asked of all 1,309 "relatively fecund" couples with one or more live births⁹ were as follows:

If you could have only one child, would you rather have:
— a boy; — a girl; — don't care?

If you could have only two children, would you rather have:
— a boy and a girl; — two boys; — two girls; — don't care?

The following two questions were asked respectively of (a) 693 couples that had children of only one sex before the birth of the last child; and (b) 591 couples that had children of both sexes at the time of the interview:

How much were you and your husband [wife] encouraged to have your last child by the reason of wanting a boy if you had only girls, or a girl if you had only boys? (Possible replies: encouraged very little, little, some, much, very much.)

How much are you and your husband [wife] discouraged from having more children . . . [because of] already having children of each sex? (Possible replies: discouraged very much, much, some, little, very little or not at all.)

In addition, wives and husbands were asked to indicate (a) which of a list of factors (including "wanting a boy if you had only girls, or a girl if you had only boys") were of first, second, and third importance in encouraging them to have their last

belief. Couples not classified as "relatively fecund" were considered "relatively sterile." The 533 "relatively sterile" couples were not asked to supply data such as those relating to preference as to sex of children.

⁹ Since these two questions are hypothetical or suppositional in nature they could have been asked of childless as well as fertile couples. As will be seen later, however, part of the method in this analysis is the establishment of categories on the basis of whether the first child or first two children were of the sex preferred.

child; and (b) which of a list of factors (including "already have children of each sex") were of first, second, and third importance in discouraging them from having more children.

It is recognized that there are various limitations and possible biases in replies to questions such as those listed above. Perhaps the chief limitation applies to the first two questions regarding sex preference if the couple could have only one child and only two children. Although these are suppositional questions, there is good evidence in Tables 1 and 2 that the replies are strongly colored by the actual sex of the first child and of the first two children. Thus among the wives whose first child was a girl, 38 per cent stated that they would prefer a girl if they could have only one child and only 7.5 per cent stated that they would prefer a boy under this condition. In contrast, among wives whose first child was a boy, only 11 per cent stated that they would prefer a girl and 37 per cent said that they would prefer a boy if they could have but one child. A similar situation is found in the husbands' replies, although the husbands' preferences for a boy if they could have only one child are in general much more frequent than those of wives.

Despite the *ex post facto* nature of the replies regarding preferences as to sex of an only child or of only two children and the consequent evidence of rationalization of replies, such rationalization is itself a social reality. In other words, although preferences regarding sex of children may affect fertility, those preferences themselves are conditioned by actual sex of existing children. It would be well to have classifications based upon preferences before marriage or before the birth of any children, but there is perhaps no reason to suppose that such preferences are any more real than those expressed after the birth of one or two children. Like other attitudes, those regarding sex of children may change with time and circumstances and it is presumably the current attitude conditioned by current circumstances that has bearing on the planning of additional children. In this connection it may be stated that the tendency for couples to be satisfied with the actual sex of existing children

probably tends to reduce the effect of sex preferences on fertility.

Whatever may be the extent and implication of rationalization, there are several other points of interest in Tables 1 and 2. In the first place, over half (53 per cent) of the mothers and 42 per cent of the fathers in the Study actually indicated that they would have no preference regarding the sex of an only child. In the second place, as already stated, the husbands' preferences as to sex of an only child ran strongly toward those for a son. Approximately 48 per cent of the fathers and only 22 per cent of the mothers stated that they would prefer a boy if they could have only one child. About 25 per cent of the mothers and only 10 per cent of the fathers stated preference for a daughter under these conditions (Table 1).

The higher proportion of fathers than of mothers stating that they would want a boy if they could have only one child may reflect a certain amount of culturally conditioned ego satisfaction of fathers in having a son. The desire to have the family name carried on may be one element in this situation¹⁰ and the folk notion that the having of a son is associated with masculinity of the father may be another.

Despite the relatively strong preferences of fathers for a son

Table 1. Parental preference as to sex of an only child in relation to actual sex of the first child.

ACTUAL SEX OF FIRST CHILD	TOTAL NUMBER	PERCENTAGE DISTRIBUTION BY SEX PREFERENCE			
		Total	No Prefer- ence	A Girl	A Boy
ALL WIVES	1,307 ^a	100.0	52.8	25.4	21.8
Female	677	100.0	54.1	38.4	7.5
Male	630	99.9	51.4	11.4	37.1
ALL HUSBANDS	1,309	99.9	42.3	9.9	47.7
Female	679	100.0	53.9	15.3	30.8
Male	630	99.9	29.8	4.1	66.0

^a Excludes two unknowns with respect to sex preference.

¹⁰ Data collected in the Study suggest that husbands attach a little more importance than wives to the factor of carrying on the family name. (See Table 5.)

if the couple were to have only one child, a larger proportion of the fathers than of the mothers in the Study (79 per cent as compared with 69 per cent) stated that they would prefer a girl and a boy if they could have only two children. The preference for "two boys" under this condition is about the same for fathers and mothers, 8 and 9 per cent. However, only about 3 per cent of the fathers as compared with 10 per cent of the mothers expressed a preference for two girls. Only 9 per cent of the fathers and 12 per cent of the mothers stated that they would have no preference as to sex of the two children if they could have only two.

Preferences as to Sex of Children in Relation to Actual Number and Sex Order of Children. Tables 3 and 4, giving preferences as to sex of an only child and only two children, respec-

Table 2. Parental preference as to sexes of only two children among all couples with children; among one-child couples, by sex of child; and among couples with two or more children, by sex of first two children.

ACTUAL SEX OF ONLY CHILD OR FIRST TWO CHILDREN	NUMBER COUPLES	PER CENT WIVES REPLYING					PER CENT HUSBANDS REPLYING			
		Total	No Preference	A Girl and A Boy	Two Girls	Two Boys	No Preference	A Girl and A Boy	Two Girls	Two Boys
ALL FERTILE COUPLES	1,309	100	12.0	69.2	10.1	8.7	9.0	79.2	3.4	8.3
<i>Couples With Only One Child, By Sex of Child</i>										
Total	365	100	10.1	70.4	13.7	5.8	7.1	85.2	3.3	4.4
Female	192	100	11.5	61.5	26.0	1.0	8.3	83.3	6.3	2.1
Male	173	100	8.7	80.3	0.0	11.0	5.8	87.3	0.0	6.9
<i>Couples With Two or More Children, By Sex of First Two Children</i>										
Total	944	100	12.7	68.8	8.7	9.9	9.7	76.9	3.5	9.9
Male and Female	485	100	7.4	88.7	2.9	1.0	5.4	91.8	0.4	2.5
Two Females	231	100	19.5	48.9	29.0	2.6	17.7	65.8	13.4	3.0
Two Males	228	100	17.1	46.5	0.4	36.0	11.0	56.6	0.0	32.5

tively, by number and sex order of all live births to the couple, reveal several points of interest. We have already noted from Tables 1 and 2 the tendency for the preferences as to sex of an only child to correspond with actual sex of the first-born child and for the preferences as to sex of only two children to correspond with actual sex of the first two children. As indicated in Tables 3 and 4 this type of rationalization is decidedly stronger among both wives and husbands actually having only one child in the first instance and only two in the other. Thus, of the 173

Table 3. Preferences as to sex of an only child, by number and sex-order of live births.

ACTUAL SEX OF CHILDREN	NUMBER OF COUPLES	TOTAL PER CENT	PER CENT WIVES REPLYING			PER CENT HUSBANDS REPLYING			
			No Preference	A Girl	A Boy	No Preference	A Girl	A Boy	
<i>One Child</i>									
M	173	100	36.4	8.1	55.5	17.9	2.9	79.2	
F	192	100	27.6	69.3	3.1	46.4	34.9	18.8	
<i>Two Children</i>									
MM	135	100	46.7	8.1	45.2	20.0	6.7	73.3	
MF	122	100	73.8	13.9	12.3	43.4	3.3	53.3	
FM	153 ^a	100	65.6	26.5	7.9	67.3	1.3	31.4	
FF	131	100	57.3	38.2	4.6	54.2	15.3	30.5	
<i>Three Children</i>									
MMM	26	100	50.0	11.5	38.5	34.6	0.0	65.4	
MMF	28	100	57.1	10.7	32.1	25.0	3.6	71.4	
MFM	29	100	62.1	27.6	10.3	44.8	3.4	51.7	
MFF	26	100	73.1	7.7	19.2	46.2	0.0	53.8	
FMM	32	100	84.4	9.4	6.3	71.9	9.4	18.8	
FMF	32	100	71.9	12.5	15.6	43.8	0.0	56.3	
FFM	31	100	74.2	12.9	12.9	54.8	0.0	45.2	
FFF	29	100	51.7	24.1	24.1	41.4	27.6	31.0	
<i>Four or More Children by Sex of First Last</i>									
M	M	52	100	40.4	19.2	40.4	40.4	7.7	51.9
M	F	39	100	53.8	10.3	35.9	38.5	5.1	56.4
F	M	41	100	65.9	24.4	9.8	34.1	7.3	58.5
F	F	38	100	63.2	23.7	13.2	60.5	2.6	36.8

^a Percentage base for wives is 151 owing to two unknowns with respect to preference as to sex of an only child.

couples whose only child was a boy, only 8 per cent of the wives and 3 per cent of the husbands stated that they would prefer a girl if they could have only one child. Likewise, among the 192 couples whose only child was a girl, only 3 per cent of the wives and 19 per cent of the husbands stated preference for a boy as an only child.

Among mothers of two children of opposite sex, the preferences as to sex of an only child correspond more frequently to the sex of the first child than to that of the second. A similar situation is found with respect to preferences of fathers for a son but not for a daughter. Among mothers and fathers of three or more children whose first and last children were of opposite sex

Table 4. Preferences as to sex of only two children, by number and sex-order of live births.

ACTUAL SEX OF CHILDREN	NUMBER OF COUPLES	TOTAL PER CENT	PER CENT WIVES REPLYING				PER CENT HUSBANDS REPLYING				
			No Pref.	A Girl and A Boy	Two Girls	Two Boys	No Pref.	A Girl and A Boy	Two Girls	Two Boys	
<i>One Child</i>											
M	173	100	8.7	80.3	0.0	11.0	5.8	87.3	0.0	6.9	
F	192	100	11.5	61.5	26.0	1.0	8.3	83.3	6.3	2.1	
<i>Two Children</i>											
MM	135	100	14.8	35.6	0.0	49.6	13.3	45.9	0.0	40.7	
MF	122	100	0.0	98.4	0.0	1.6	0.0	98.4	0.0	1.6	
FM	153	100	3.3	93.5	3.3	0.0	4.6	95.4	0.0	0.0	
FF	131	100	18.3	40.5	39.7	1.5	19.1	58.0	19.8	3.1	
<i>Three Children</i>											
MMM	26	100	30.8	38.5	0.0	30.8	11.5	46.2	0.0	42.3	
MMF	28	100	21.4	78.6	0.0	0.0	3.6	78.6	0.0	17.9	
MFM	29	100	27.6	72.4	0.0	0.0	0.0	100.0	0.0	0.0	
MFF	26	100	19.2	73.1	3.8	3.8	11.5	84.6	3.8	0.0	
FMM	32	100	6.3	84.4	6.3	3.1	15.6	84.4	0.0	0.0	
FMF	32	100	12.5	87.5	0.0	0.0	12.5	87.5	0.0	0.0	
FFM	31	100	25.8	61.3	12.9	0.0	25.8	71.0	3.2	0.0	
FFF	29	100	17.2	51.7	20.7	10.3	17.2	69.0	13.8	0.0	
<i>Four or More Children by Sex of</i>											
<i>First</i>	<i>Last</i>										
M	M	52	100	11.5	75.0	3.8	9.6	7.7	84.6	0.0	7.7
M	F	39	100	15.4	69.2	7.7	7.7	2.6	82.1	2.6	12.8
F	M	41	100	19.5	70.7	7.3	2.4	7.3	82.9	0.0	9.8
F	F	38	100	13.2	76.3	10.5	0.0	13.2	78.9	0.0	7.9

the preferences regarding sex of an only child also appear to be somewhat more highly correlated with sex of the first child than with sex of the last.

Table 4 points up again the preferences for a child of each sex if the couple were to have only two children. This type of preference is especially strong (over 95 per cent) among parents actually having only a boy and a girl. It was expressed with lowest frequency by parents of two or more children of the same sex and even in these instances the proportions expressing this preference extended from 35 to 69 per cent.

Relation of Preferences as to Sex of Children to Fertility-Planning Status, Socio-Economic Status, and Economic Security of the Couple. As already indicated, Winston adduced the hypothesis that preferences regarding the sex of children may be expected to exist more among couples practicing contraception than among couples not practicing contraception. The writers have undertaken to test this assumption with a breakdown of the present data on preferences regarding sex of an only child and of only two children, by fertility-planning status of the couple. As described in previous articles¹¹ the 1,444 "relatively fecund" couples in the Indianapolis Study were classified by fertility-planning status on the basis of detailed pregnancy and contraceptive histories, including data on the outcome of pregnancies and attitudes toward each pregnancy. The four broad categories used in the Study, in decreasing degree of success in planning family size, are: number and spacing planned, number planned, quasi-planned, and excess fertility.¹²

¹¹ See especially Whelpton, P. K. and Kiser, Clyde V.: *Social and Psychological Factors Affecting Fertility. VI. The Planning of Fertility.* The Milbank Memorial Fund *Quarterly*, January, 1947, xxv, No. 1, pp. 63-111 (Reprint pp. 209-257).

¹² The four categories may be briefly described as follows:

Number and Spacing of Pregnancies Planned. The 403 couples in this group exhibit the most complete planning of fertility in that they had no pregnancies that were not deliberately planned by stopping contraception in order to conceive. The group consists of two major subdivisions: (a) 121 couples practicing contraception regularly and continuously and having no pregnancy, and (b) 282 couples whose every pregnancy was deliberately planned by interrupting contraception in order to conceive.

Number Planned. This group of 205 couples consists mainly of those whose *last* pregnancy was deliberately planned by stopping contraception in order to conceive

Breakdowns of the data were also made by index of socio-economic status of the couple¹³ and by index of economic security.¹⁴

The data charted in Figure 1 indicate no consistent relation of fertility-planning status to parental preferences regarding the sex of an only child. The proportion of wives, but not that of husbands, stating that they would have *no preference* as to the sex of an only child increases slightly with lowering of socio-economic status. On the other hand, the proportion of wives and husbands stating that they would have no preference as to the sex of an only child tends to be somewhat higher among couples of high than of low rating in the index of economic security. However, the relationships observed in Figure 1 are slight and incomplete and virtually no relation is found between preferences as to sex of only two children and the three variables just considered (*See Appendices I and II*).

but who had one or more previous pregnancies under other circumstances. Because of this, the couples are regarded as having planned the number but not the spacing of their pregnancies.

Quasi-Planned. This group includes 454 couples who did not deliberately plan the last pregnancy in the manner described above but who either wanted the last pregnancy or wanted another pregnancy.

Excess Fertility. This group is composed of 382 couples classified as least successful in planning size of family because one or more pregnancies had occurred after the last that was wanted.

¹³ The index of socio-economic status of the couple is based upon the following eight items: average annual earnings of husband since marriage, monthly rent or rental value of home (without utilities) at interview, net worth of couple, husband's longest occupation, purchase price of car, education of husband, education of wife, and score on Chapin's Social Status Scale. A low score indicates high socio-economic status and *vice versa*.

See Kiser, Clyde V. and Whelpton, P. K.: Social and Psychological Factors Affecting Fertility. ix. Fertility Planning and Fertility Rates by Socio-Economic Status. The Milbank Memorial Fund *Quarterly*, April, 1949, xxvii, No. 2, pp. 213, 216 (Reprint pp. 385, 387).

¹⁴ The index of economic security of the couples in the Indianapolis Study is based upon the following items: interviewer's rating of the wife and husband with respect to feeling of economic security, self-ratings of wives and husbands on extent to which economic insecurity discouraged the couple from having more children, degree of confidence in ability to meet future expenses, frequency faced with possibility of husband's pay cut or unemployment, frequency of financial help to relatives, and amount of financial help that could be expected from relatives in an emergency. In this case high index is supposed to be indicative of strong feeling of economic security and *vice versa*.

See Kiser, Clyde V. and Whelpton, P. K.: Social and Psychological Factors Affecting Fertility. xi. The Interrelation of Fertility, Fertility Planning, and Feeling of Economic Security. The Milbank Memorial Fund *Quarterly*, January, 1951, xxix, No. 1, p. 112.

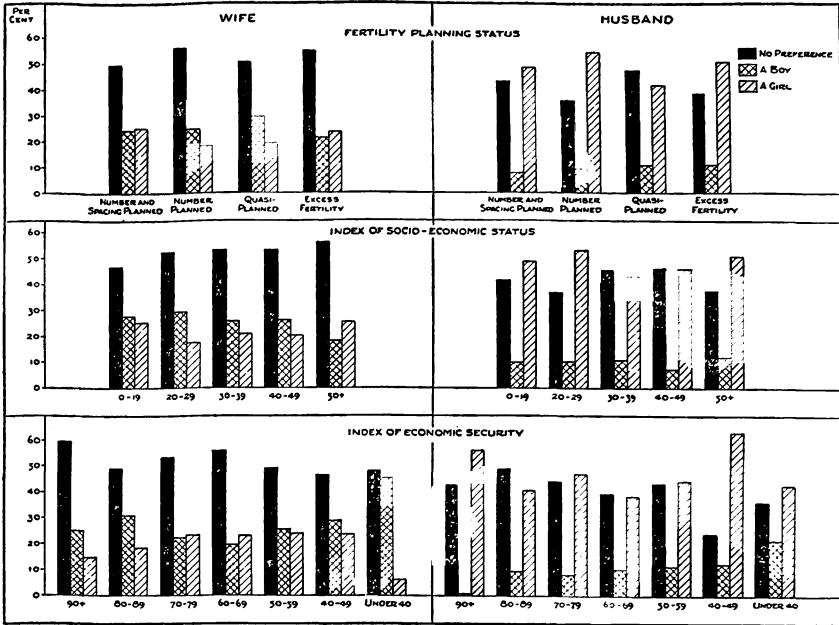


Fig. 1. Percentage distribution of wives and husbands with one or more children by stated preference as to sex of an only child, by fertility-planning status, index of socio-economic status, and index of economic security. (See Appendix I.)

RELATION OF PREFERENCES REGARDING SEX OF CHILDREN TO FERTILITY OF THE COUPLE

Some basis for the inference that parental preference regarding sex of children is not a major determinant of family size among couples in the Indianapolis Study is already afforded by the findings that (a) over half of the wives and over 40 per cent of the husbands state that they would have no preference as to sex of even an only child; (b) among those stating a preference as to sex of an only child there is a decided positive relation of those replies to actual sex of the first child of the couple (this suggests that many people may easily reverse their former preferences regarding sex of children on the basis of what the stork brings); and (c) over two-thirds of the wives and over three-fourths of the husbands revealed their liking for children of both sexes by stating that they would want a girl and a boy if they could have only two children.

For further analysis of the relation of preference as to sex of children to fertility, three types of data will be examined: (a) sex ratios of last-born and previous children (following in major respects the methods of Winston and Harper); (b) opinions of wives and husbands on the impact of this factor on their own fertility; and (c) analysis of actual fertility rates in relation to stated preferences regarding sex of an only child and only two children and actual sex of the first or first two children.

Sex Ratios Among the Last-Born and Previous Children of Couples in the Study. As already described, both Winston and Harper found higher proportions of males among last-born children than among all children ever born to groups of prominent people. On the basis of his findings, Winston concluded that a preference existed for males.

Since the data were available, a similar analysis was made for couples in the present Study with the addition that the data are also classified by replies to the question pertaining to the provisional sex preference of an only child.

Figure 2 presents the sex ratios (males per 100 females) for all children except the last born, all children ever born, and the last-born children. These are equivalent to sex ratios at birth because deceased children are included. First of all it should be noted that the sex ratio (101) for all births represented in the Study is lower than the sex ratio at birth in the United States for about the same period (circa 106). This is probably due to sampling variation. In the total sample the sex ratio is higher for last-born children (105) than for all children except the last born (97) but the difference is not statistically significant.

Since the higher sex ratio for last-born children presumably is associated with contraceptive practice, the analysis was also restricted to planned families. Curiously, however, the sex ratio among all last-born children in planned families is 98 as compared with 123 for all except the last born. It is 109 for all children in planned families.

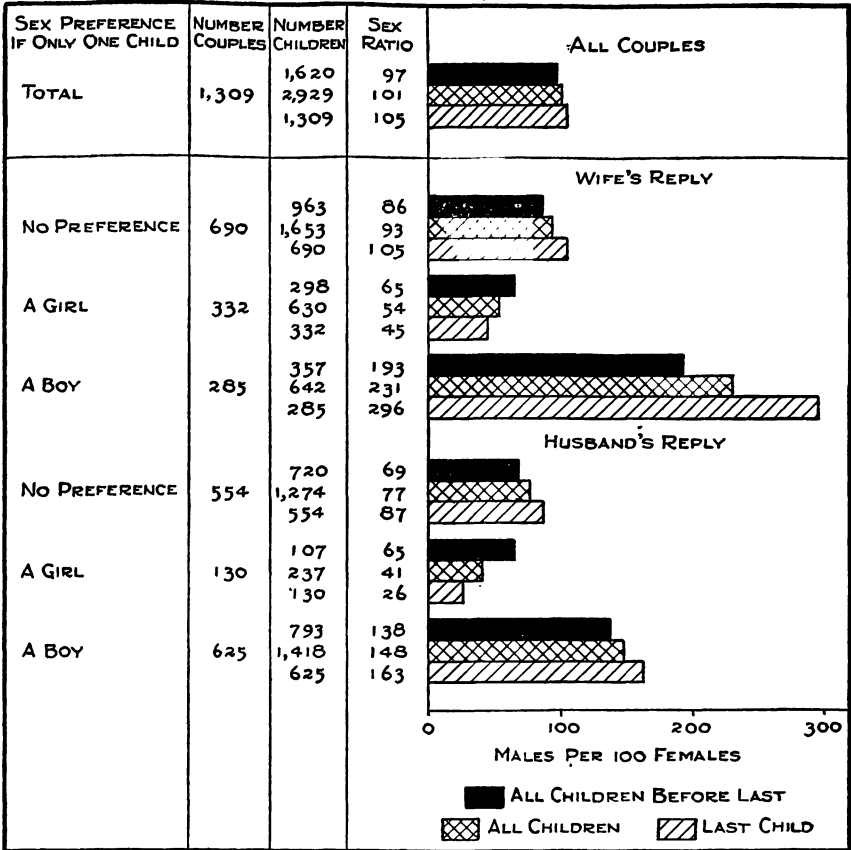


Fig. 2. Sex ratios among all children before the last-born child, all children, and last-born children, by stated preference of wives and husbands regarding sex of an only child.

Perhaps of more interest in Figure 2 is the relation of sex ratios among last-born and previous children to the stated preference of the wife and husband as to the sex of an only child. First, regardless of whether preference of the wife or husband is used as the basis for classification, the sex ratio is highest among children of parents expressing preference for a boy as an only child, in intermediate position for children of parents expressing no preference, and lowest for children of couples expressing preference for a girl.¹⁵ In the second place,

¹⁵ All of the differences in sex ratios by sex preference were found to be statistically significant when sex ratios of either "all children" or "last-born children" were

(Continued on page 455)

among children of women or men expressing preference for a boy and among children of either parent expressing impartiality as to sex of an only child, the sex ratio is consistently higher for the last-born than for preceding children. In contrast, among children of parents expressing preference for a girl as an only child, the sex ratio is *lower* for the last-born than for previous children. Although only two differences of this type stand up as statistically significant,¹⁶ the consistency of the patterns described is such that the writers would not interpret them as arising from chance alone. Perhaps in large measure they simply reflect again the tendency for wives and husbands to state sex preferences in terms of actual sex of children. However, to some extent they may reflect a tendency to stop having children after getting a child of the sex preferred, a matter which will be considered in a later section.

At this point it is also relevant to compare certain other findings from the present data with those reported by Winston and Harper. Unlike Winston's finding that more of the two-child families had two boys than two girls, these two types of families are virtually equal in number in the Indianapolis Study (135 with two boys and 131 with two girls). Among the

used as bases for comparison. However, when the sex ratios of all children except the last were used as bases for comparison, no significant difference was found between that for children of women expressing no preference as to sex of an only child (86) and that for children of women expressing preference for a girl (65). ($\text{Difference} \div \sigma \text{Difference} = 1.53$.) Likewise no significant difference was found in the corresponding groups based upon the husbands' replies (69 and 65: $\text{Difference} \div \sigma \text{Difference} = .25$). For interpretation, a difference is regarded as "not significant" if the quotient ($\text{Difference} \div \sigma \text{Difference}$) is under 1.96, as "moderately significant" if the quotient is 1.96-2.57, and as "very significant" if the quotient is larger than 2.57. These three levels of significance are equivalent respectively to $P > .05$, $P = .01-.05$, and $P < .01$.

It should be noted that for tests of significance, sex ratios (males per 100 females) were converted into percentages (males per 100 births). The tests were made more rigorous by appropriate reductions in n (number of children) since the numbers shown in Figure 2 are those in the inflated sample. See Whelpton, P. K. and Kiser, Clyde V.: *Social and Psychological Factors Affecting Fertility. V. The Sampling Plan, Selection, and the Representativeness of Couples in the Inflated Sample. The Milbank Memorial Fund Quarterly*, January, 1946, xxiv, No. 1, pp. 69-76 (Reprint pp. 183-190).

¹⁶ A significant difference was found between the sex ratio for "last-born" and "all except last-born" children of women preferring a boy as an only child. ($\text{Difference} \div \sigma \text{Difference} = 1.98$.) A significant difference was also found between the sex ratio for "last-born" and "all except last-born" children of men preferring a girl if they were to have an only child. ($\text{Difference} \div \sigma \text{Difference} = 2.50$.)

Table 5. Percentage distribution of _____
 couragement in having last child.

REASON ENCOURAGED IN HAVING LAST CHILD	ALL COUPLES REPLYING			COUPLES HAVING CHILDREN OF ONLY ONE SEX PRIOR TO LAST CHILD		
	First	Second	Third	First	Second	Third
ALL WIVES	1,354*	1,354*	1,354*	693	693	693
TOTAL	100.0	100.0	99.9	100.0	100.1	100.0
A Strong Liking for Children	49.3	13.2	9.8	41.7	13.4	9.5
A Belief that it is a Religious Duty to Have a Family	2.2	4.4	3.1	1.6	3.0	2.2
The Traditional Belief that Married Couples Ought to Have Children	9.1	13.2	13.2	6.9	8.4	9.1
A Feeling that it is Important to Carry on the Family Name	0.6	2.1	4.9	0.1	0.6	3.9
A Desire to See What Own Children Would be Like	5.0	14.0	14.5	2.6	5.8	10.2
A Feeling that Children Bring Husband and Wife Closer Together	10.9	22.1	19.2	8.1	20.5	14.0
Not Wanting an Only Child	12.3	11.5	9.4	23.7	19.5	16.2
Not to be Left Childless in Case of Death of Only Child	1.0	4.5	4.7	1.7	7.8	7.6
The Desire of Children for More Brothers and Sisters	2.4	7.4	8.6	2.9	11.1	11.4
Wanting a Girl if Only Had Boys, or a Boy if Only Had Girls	5.2	5.1	7.8	10.0	9.1	13.9
Unknown	2.0	2.5	4.7	0.7	0.9	2.0
ALL HUSBANDS	1,357*	1,357*	1,357*	693	693	693
TOTAL	100.0	99.9	100.1	100.1	99.8	100.0
A Strong Liking for Children	43.7	13.9	11.1	41.1	11.5	12.6
A Belief that it is a Religious Duty to Have a Family	3.5	5.2	4.7	3.5	4.0	2.6
The Traditional Belief that Married Couples Ought to have Children	9.1	16.5	14.7	7.5	14.1	11.0
A Feeling that it is Important to Carry on the Family Name	2.1	3.8	5.5	1.2	2.3	2.9
A Desire to See What Own Children Would be Like	3.5	9.4	13.7	1.9	6.6	11.7
A Feeling that Children Bring Husband and Wife Closer Together	18.0	26.0	19.4	13.0	25.3	16.3
Not Wanting an Only Child	9.7	10.1	6.6	18.0	16.7	10.2
Not to be Left Childless in Case of Death of Only Child	0.4	2.1	5.2	0.7	4.0	9.2
The Desire of Children for More Brothers and Sisters	1.5	3.2	7.1	2.2	3.9	10.0
Wanting a Girl if Only Had Boys, or a Boy if Only Had Girls	5.5	5.4	6.6	9.7	9.8	10.8
Unknown	3.0	4.3	5.5	1.3	1.6	2.7

* Includes responses of all couples who had a live birth and all childless couples with wife pregnant at interview or respondent indicating couple intended to have a child in future. Forty-five childless couples are included on basis of response of wife and 48 on basis of response of husband.

planned families alone, the numbers are 63 with two boys and 62 with two girls.

Like Winston's finding that among two-child families with children of the opposite sex more had a boy than a girl as the last child, the numbers are 153 with a boy as the last child and 122 with a girl as the last. However, among planned families alone, the numbers are 48 and 65, respectively.

Unlike Harper's finding that the proportion of families with the first two children of opposite sex is higher in two-child than in three-child families, these two proportions are virtually equal in the present Study (50.8 per cent for two-child families and 51.1 per cent for three-child families). Among planned families alone, the two proportions are 47.5 and 52.8.

Opinions Regarding the Influence of Preference as to Sex of Children on Own Fertility. For the sample as a whole, preference regarding the sex of children does not seem to be an important determinant of the size of family. Percentage distributions of replies of the wives and husbands as to which of ten listed reasons were of first, second, and third importance in encouraging them to have their last child (Table 5) suggest at first glance the relative unimportance of the factor "wanting a girl if had only boys, or a boy if had only girls." The number of wives and husbands giving this as the reason of first importance is relatively small, 71 wives or 5.2 per cent of the total answering and 75 husbands or 5.5 per cent. Approximately 18 per cent of all wives and husbands list this factor as of first, second, or third importance in encouraging them to have their last child. However, among the 693 couples having children of only one sex before the birth of their last child, 10 per cent of the wives and husbands give this situation as the most important reason for wanting the last child. Approximately one-third of the wives and husbands in this category give it as the reason of first, second, or third importance.

As indicated in Table 6, the wives and husbands designating "wanting a girl (boy) if had only boys (girls)" as the most important reason for having the last child exhibited higher

Table 6. Children ever born per 100 couples by first, second, and third most important reason for encouragement in having last child.

REASON FOR LAST CHILD	MOST IMPORTANT REASON		SECOND MOST IMPORTANT REASON		THIRD MOST IMPORTANT REASON	
	Number Couples	Rate	Number Couples	Rate	Number Couples	Rate
ALL WIVES	1,354 ^a	217	1,354 ^b	217	1,354 ^c	217
A Strong Liking for Children	667	201	179	217	133	226
A Belief that it is a Religious Duty to Have a Family	30	247	59	205	42	238
The Traditional Belief that Married Couples Ought to Have Children	123	260	179	212	179	213
A Feeling that it is Important to Carry on the Family Name	8	*	29	152	66	179
A Desire to See What Own Children Would be Like	68	150	189	161	197	179
A Feeling that Children Bring Husband and Wife Closer Together	147	231	299	224	260	201
Not Wanting an Only Child	167	203	156	233	127	242
Not to be Left Childless in Case of Death of Only Child	14	*	61	220	63	238
The Desire of Children for More Brothers and Sisters	32	269	100	267	117	255
Wanting a Girl if Had Only Boys, or a Boy if Had Only Girls	71	282	69	242	106	250
ALL HUSBANDS	1,357 ^d	216	1,357 ^e	216	1,357 ^f	216
A Strong Liking for Children	593	207	189	190	150	242
A Belief that it is a Religious Duty to Have a Family	47	247	70	230	64	164
The Traditional Belief that Married Couples Ought to Have Children	124	249	224	227	199	189
A Feeling that it is Important to carry on the Family Name	29	210	52	212	75	156
A Desire to See What Own Children Would be Like	47	140	128	192	186	202
A Feeling that Children Bring Husband and Wife Closer Together	244	207	353	205	263	221
Not Wanting an Only Child	131	215	137	241	89	246
Not to be Left Childless in Case of Death of Only Child	5	*	29	217	70	224
The Desire of Children for More Brothers and Sisters	21	262	44	280	97	271
Wanting a Girl if Had Only Boys, or a Boy if Had Only Girls	75	273	73	258	89	248

* Rate not computed.

^aTwenty-seven unknowns included.

^bThirty-four unknowns included.

^cSixty-four unknowns included.

^dForty-one unknowns included.

^eFifty-eight unknowns included.

^fSeventy-five unknowns included.

fertility rates than couples listing any other reason as the

Table 7. Percentage distribution of three most important reasons for discouragement in having another child.

REASON DISCOURAGED IN HAVING ANOTHER CHILD	ALL COUPLES ANSWERING			COUPLES HAVING CHILDREN OF EACH SEX AT TIME OF INTERVIEW		
	First	Second	Third	First	Second	Third
ALL WIVES	1,444	1,444	1,444	591	591	591
TOTAL	100.0	99.9	99.8	99.9	100.2	100.2
Cost of Children	50.4	21.4	12.7	50.6	20.0	11.3
Not Being More Interested in Children	1.0	2.4	2.6	0.5	1.0	1.4
Parents Had Hard Time Rearing Children	1.1	6.4	4.4	0.7	4.6	3.4
Sharing House	2.1	4.7	5.7	0.8	5.6	3.0
Conformity with "Our Crowd"	0.1	1.3	1.1	0.2	1.2	1.4
Avoid Being Tied Down	1.9	7.2	12.8	1.5	7.8	12.0
A Feeling that Children Cause Parents to Lose Interest in Each Other	0.5	0.7	1.9	0.7	0.2	1.4
Poor Health of Self	16.6	12.3	8.9	17.4	9.5	9.0
Poor Health of Spouse	2.3	3.7	3.1	3.0	2.0	2.4
Poor Health of Children	1.3	1.2	2.7	0.7	1.9	2.4
Not Sure of Steady Income	11.3	20.3	15.0	9.6	21.8	14.0
Fear or Dread of Pregnancy and Childbirth	5.7	9.3	11.6	2.2	8.0	9.5
Already Has Child of Each Sex	4.5	5.7	10.4	11.0	13.7	23.9
Unknown	1.2	3.3	6.9	1.0	2.9	5.1
ALL HUSBANDS	1,444	1,444	1,444	591	591	591
TOTAL	99.9	100.1	99.9	99.8	100.1	99.9
Cost of Children	42.5	20.6	13.5	46.5	20.0	13.4
Not Being More Interested in Children	1.2	2.9	4.2	1.0	2.5	2.9
Parents Had Hard Time Rearing Children	1.5	5.3	7.8	1.4	4.4	5.9
Sharing House	1.3	6.0	4.5	1.2	4.6	3.2
Conformity with "Our Crowd"	0.3	1.6	1.9	—	2.4	0.5
Avoid Being Tied Down	2.2	5.7	8.0	1.7	7.3	7.1
A Feeling that Children Cause Parents to Lose Interest in Each Other	0.5	1.3	1.8	0.5	1.9	1.5
Poor Health of Self	1.1	3.9	3.5	0.3	2.4	2.5
Poor Health of Spouse	19.9	9.8	7.7	17.1	7.4	8.8
Poor Health of Children	0.8	1.5	1.5	0.8	2.7	1.7
Not Sure of Steady Income	13.6	20.6	17.0	11.3	21.8	16.9
Fear or Dread of Pregnancy and Childbirth	6.2	10.4	10.8	3.2	6.3	7.4
Already Has Child of Each Sex	6.0	5.3	9.3	14.0	12.2	22.2
Unknown	2.8	5.2	8.4	0.8	4.2	5.9

most important. The fertility rates ranked second highest among couples giving the above as the reason of second or third importance. It is possible that continued effort to have a child of the sex desired boosted the fertility rate of these couples.

Under the assumption that preferences regarding sex of children may serve to keep couples that have children of both sexes from having another child, the factor "already having a child of each sex" was included as one of thirteen listed reasons from which wives and husbands in the Study were asked to indicate the most important, second most important, and third most important reason for being discouraged in having another child. In the total sample only 4.5 per cent of the wives and 6.0 per cent of the husbands give the fact of already having children of both sexes as the most important reason for being disinclined to have more children (Table 7). However, approximately 21 per cent of all the wives and husbands give this as one of three most important reasons for discouragement in having another child. Here again, this reason is validly chosen only by couples who had children of each sex at the time of interview. There were 591 couples in this category and when this number is used as the base 11 per cent of the wives and 14.0 per cent of the husbands indicate "already having a child of each sex" as the most important deterrent in having another child. Furthermore, 49 per cent of the wives and 48 per cent of the husbands list it as one of the three most important reasons for not having another child.

It is seen that wives and husbands listing "already having a child of each sex" as the most important reason for not having another child, tend to have higher fertility than those giving other reasons (Table 8). This probably reflects the selective factor inherent in the fact that persons listing this reason had at least two children. However, since the couples list this as an important reason for not having another child, there is the suggestion that sex preference may have been an important inducement for the previous children.

As previously stated, 693 couples who had children of only one sex prior to the conception of the last child were asked

Table 8. Children ever born per 100 couples by first, second, and third most important reason for discouragement from having more children.

REASON FOR DISCOURAGEMENT FROM HAVING MORE CHILDREN	MOST IMPORTANT REASON		SECOND MOST IMPORTANT REASON		THIRD MOST IMPORTANT REASON	
	Number Couples	Rate	Number Couples	Rate	Number Couples	Rate
ALL WIVES	1,444a	203	1,444b	203	1,444c	203
Cost of Children	728	214	309	200	184	179
Not Being More Interested in Children	14	*	35	143	37	151
Parents Had Hard Time Rearing Children	16	*	92	158	64	197
Sharing House	31	139	68	192	82	183
Conformity with "Our Crowd"	1	*	19	*	16	*
Avoid Being Tied Down	27	200	104	214	185	214
A Feeling that Children Cause Parents to Lose Interest in Each Other	7	*	10	*	28	164
Poor Health of Self	239	205	177	189	129	219
Poor Health of Spouse	33	224	54	183	45	224
Poor Health of Children	19	*	18	*	39	203
Not Sure of Steady Income	163	177	293	230	217	200
Fear or Dread of Pregnancy and Childbirth	83	155	134	190	168	201
Already Has Child of Each Sex	65	265	83	265	150	261
ALL HUSBANDS	1,444d	203	1,444e	203	1,444f	203
Cost of Children	614	216	297	197	195	195
Not Being More Interested in Children	17	*	42	174	60	175
Parents Had Hard Time Rearing Children	22	255	76	195	113	161
Sharing House	19	*	86	192	65	165
Conformity with "Our Crowd"	4	*	23	283	28	171
Avoid Being Tied Down	32	200	82	213	115	207
A Feeling that Children Cause Parents to Lose Interest in Each Other	7	*	19	*	26	165
Poor Health of Self	16	*	57	177	51	180
Poor Health of Spouse	288	202	141	184	111	226
Poor Health of Children	12	*	22	309	22	232
Not Sure of Steady Income	197	183	297	214	245	218
Fear or Dread of Pregnancy and Childbirth	89	154	150	173	156	179
Already Has Child of Each Sex	87	245	77	269	135	288

* Rate not computed.

a Eighteen unknowns included.

b Forty-eight unknowns included.

c One hundred unknowns included.

d Forty unknowns included.

e Seventy-five unknowns included.

f One hundred twenty-two unknowns included.

Table 9. Percentage distribution of couples having living children of only one sex before conception of the last child, by extent to which the wife or husband was encouraged to have the last child by wanting a child of the other sex, according to number and sex order of children.

ACTUAL SEX OF CHILDREN	PER CENT DISTRIBUTION BY EXTENT ENCOURAGED						
	Number Couples	Total	Very Much	Much	Some	Little	Very Little
	REPLIES OF WIFE						
TOTAL	643a	100.0	22.2	11.8	21.3	14.5	30.2
<i>Two Children</i>	459	99.9	16.3	8.7	23.3	18.3	33.3
MM	118	100.1	13.6	9.3	21.2	24.6	31.4
MF	105	99.9	19.0	3.8	18.1	20.0	39.0
FM	118	100.0	20.3	9.3	29.7	8.5	32.2
FF	118	100.0	12.7	11.9	23.7	20.3	31.4
<i>Three Children</i>	125b	100.0	40.8	15.2	16.8	5.6	21.6
MMM	26	100.0	38.5	7.7	19.2	11.5	23.1
MMF	27	99.9	40.7	11.1	18.5	3.7	25.9
FFF	29	99.9	44.8	17.2	17.2	6.9	13.8
FFM	29	99.9	51.7	20.7	17.2	0.0	10.3
<i>Four or More Children</i>	42	100.0	40.5	23.8	11.9	4.8	19.0
All Living Children :							
Male Before Last	23	99.9	43.5	30.4	13.0	0.0	13.0
Female Before Last	19	*					
	REPLIES OF HUSBAND						
TOTAL	655c	99.9	17.9	14.0	22.4	15.4	30.2
<i>Two Children</i>	474	99.9	14.1	13.9	21.9	16.2	33.8
MM	120	99.9	2.5	10.0	25.8	20.8	40.8
MF	99	99.9	24.2	9.1	23.2	12.1	31.3
FM	135	100.0	16.3	21.5	12.6	17.0	32.6
FF	120	100.0	15.0	13.3	27.5	14.2	30.0
<i>Three Children</i>	125d	100.0	30.4	12.8	19.2	16.2	21.6
MMM	26	100.0	15.4	15.4	19.2	11.5	38.5
MMF	27	99.9	48.1	0.0	25.9	14.8	11.1
FFF	27	99.9	25.9	14.8	22.2	18.5	18.5
FFM	29	99.9	37.9	24.1	6.9	20.7	10.3
<i>Four or More Children</i>	41	100.1	29.3	17.1	26.8	9.8	17.1
All Living Children :							
Male Before Last	24	99.9	33.3	8.3	33.3	4.2	20.8
Female Before Last	17	*					

* Percentage not computed.

a Excludes fifty wives unknown as to extent encouraged. Includes seventeen one-child couples pregnant at interview.

b Included fourteen wives with live births of different sex order owing to deaths or twins.

c Excludes thirty-eight unknown as to extent encouraged. Includes fifteen one-child couples pregnant at interview.

d Includes fifteen husbands with live births of different sex order owing to deaths or twins and one with children of unknown sex order.

"How much were you and your husband [wife] encouraged to have your last child by . . . wanting a boy if you had only girls, or a girl if you had only boys?" Among the 643 wives answering this question, 22 per cent replied "very much," 12 per cent "much," 21 per cent "some," 14.5 per cent "little," and 30 per cent "very little." For the 655 husbands answering the question, the replies were 18 per cent "very much," 14 per cent "much," 22 per cent "some" 15 per cent "little," and 30 per cent "very little." As noted in Table 9, the degree of encouragement from this factor is much lower among parents of two (one child before the last) than among parents of three (two of the same sex before the last). However, it is approximately the same among the parents of four or more as among parents of three. Thus the proportion of mothers encouraged "very much" to have their last child in the hope of having one of the sex opposite that of the previous children is 16 per cent for mothers of two children, 41 per cent for mothers of three, and 41 per cent for mothers of four or more. There is no systematic difference in degree of encouragement by sex of the previous children. However, the data again indicate the presence of rationalization of replies in that the degree of stated encouragement is rather systematically higher among those whose last child was of the sex opposite that of the preceding children than among those whose last child was of the same sex as the preceding children. No relation is found between replies of either wife or husband and fertility-planning status, socio-economic status, and index of economic security (Appendix III).

Fertility rates for couples having children of only one sex before the birth of the last child, increase with extent to which either the wife or husband was encouraged in having the last child because of "wanting a boy if [they] had only girls" or *vice versa* (Figure 3). This type of relation is less pronounced but still in evidence when the analysis is restricted to planned families having children of only one sex before the birth of the last child. The data are given for the groups of detailed fertility-planning status in Appendix iv.

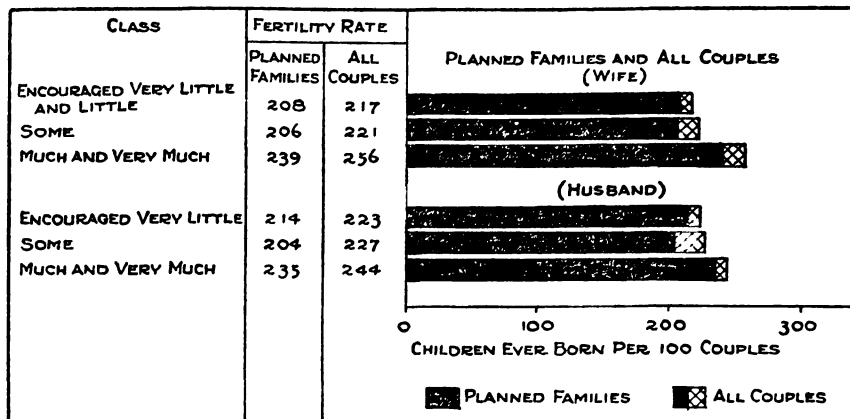


Fig. 3. Children ever born per 100 couples having living children of only one sex before conception of last child, by extent to which the wife or husband was encouraged to have the last child by wanting a child of the other sex. Rates shown for all couples and for planned families.

There were 591 couples in the Study who had children of each sex at the time of the interview and were required to reply to the question: "How much are you and your husband [wife] discouraged from having more children [because of] already having children of each sex?" The replies of the wives are distributed as follows: 20 per cent "very much or much," 20 per cent "somewhat," and 60 per cent "little or very little." The replies of the husbands are approximately the same, 16 per cent "very much or much," 22 per cent "somewhat," and 62 per cent "little or very little."

As noted in Table 10, the degree of discouragement in having another child by the fact of "already having a child of each sex" decreases with the total number of children the couples have. This occurs despite the fact that the proportion of unwanted pregnancies increases with order of pregnancy among couples in the Study. It probably simply reflects the ascendance of economic "reasons for discouragement" among the larger families. No systematic difference in degree of discouragement by sex order of the children is revealed by Table 10. Again no systematic relation of these distributions to fertility-planning status, socio-economic status, and index of economic security is found. (Appendix v.)

As noted in Figure 4, fertility rates among all couples having children of both sexes at the time of the interview rise with decreasing discouragement of either the wife or husband from having more children because of already having a child of each

Table 10. Percentage distribution of couples having children of both sexes at the time of interview, by extent to which the wife or husband was discouraged from having another child because they already had children of both sexes, according to number and sex order of children.

ACTUAL SEX OF CHILDREN	NUMBER COUPLES	PER CENT DISTRIBUTION BY EXTENT DISCOURAGED					
		Total	Very Little	Little	Some	Much	Very Much
REPLIES OF WIFE							
TOTAL	591	100.0	47.9	11.7	20.1	6.1	14.2
<i>Two Children</i>	270	100.1	35.6	11.5	26.7	7.0	19.3
MF	122	100.1	37.7	9.0	23.0	7.4	23.0
FM	148	100.0	33.8	13.5	29.1	7.4	16.2
<i>Three Children</i>	176 ^a	100.0	56.8	13.1	13.1	4.5	12.5
MMF	27	100.0	55.6	3.7	11.1	3.7	25.9
MFM	29	99.9	51.7	13.8	17.2	10.3	6.9
MFF	24	100.1	75.0	4.2	4.2	0.0	16.7
FMM	32	100.0	53.1	12.5	25.0	6.3	3.1
FMF	32	100.1	50.0	21.9	9.4	0.0	18.8
FFM	31	100.1	61.3	19.4	9.7	3.2	6.5
<i>Four or More Children</i>	145	100.0	60.0	10.3	16.6	6.2	6.9
Equal Number by Sex :	52	100.1	55.8	9.6	23.1	5.8	5.8
Majority Male	52	100.0	59.6	15.4	9.6	7.7	7.7
Majority Female	41	100.1	65.9	4.9	17.1	4.9	7.3
REPLIES OF HUSBAND							
TOTAL	591	100.0	47.7	14.2	21.7	7.1	9.3
<i>Two Children</i>	270	100.0	40.7	12.6	25.9	9.3	11.5
MF	122	100.1	36.1	16.4	23.0	9.8	14.8
FM	148	100.1	43.9	9.5	28.4	8.8	9.5
<i>Three Children</i>	176 ^a	100.0	47.7	19.9	19.3	5.7	7.4
MMF	27	99.9	44.4	14.8	22.2	7.4	11.1
MFM	29	100.0	48.3	13.8	20.7	10.3	6.9
MFF	24	99.9	58.3	20.8	12.5	0.0	8.3
FMM	32	100.1	50.0	21.9	21.9	6.3	0.0
FMF	32	100.0	46.9	21.9	15.6	3.1	2.5
FFM	31	100.0	41.9	25.8	22.6	6.5	3.2
<i>Four or More Children</i>	145	100.0	60.7	10.3	16.6	4.8	7.6
Equal Number by Sex :	52	100.0	61.5	7.7	17.3	5.8	7.7
Majority Male	52	99.9	61.5	11.5	15.4	3.8	7.7
Majority Female	41	100.0	58.5	12.2	17.1	4.9	7.3

^a Includes one couple with children of unknown sex order.

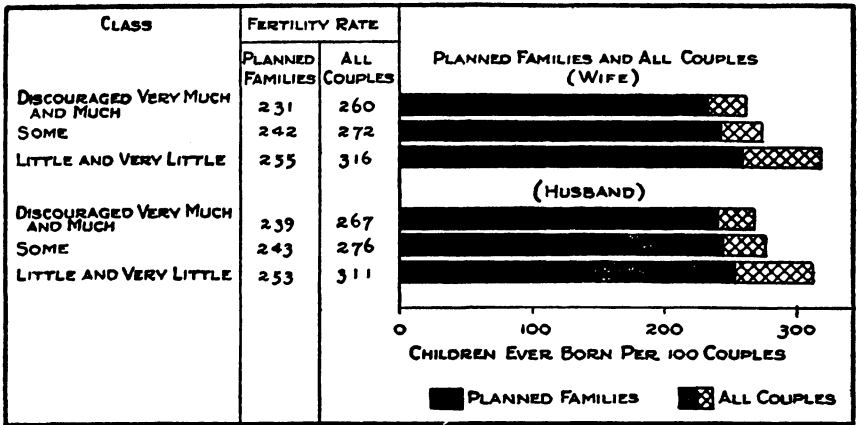


Fig. 4. Children ever born per 100 couples having children of both sexes at the time of interview, by extent to which the wife or husband was discouraged from having another child because they already had children of both sexes. Rates shown for all couples and for planned families.

sex. This pattern holds in classifications based upon replies of either the wife or husband, and for all planned families as well as those of other fertility-planning status (Appendix VI).

The data collected for each successive pregnancy included information from the wife as to whether that pregnancy was wanted by herself and her husband and the reasons for wanting or not wanting it. Frequently multiple reasons were given and the columns on the punch card relating to reasons were multiple punched. Although these columns permit no assessment as to relative importance of the reasons given, they do afford the basis for ascertaining the proportion of wives and husbands giving desire for a child of given sex as a reason for wanting the pregnancy.

Table 11 presents number of wives and husbands giving sex preference as a reason for encouragement in having given pregnancies (Column 5) and the percentages that these numbers form of all couples having a pregnancy of the order considered, all wives or husbands wanting the pregnancy, and all wives or husbands wanting the pregnancy and listing any reason for wanting it. According to these data the desire for a child of given sex is a very infrequent motivation for the first

child but increases in frequency by order of pregnancy through the fourth. This increase is rather striking among couples wanting pregnancies of given order and giving reasons for wanting them.¹⁷

Fertility Rates in Relation to Preferences Regarding Sex of an Only Child and Only Two Children, by Actual Sex of the First and First Two Children. The preceding data have suggested that preferences regarding the sex of children are important only to a relatively small proportion of couples in the

Table 11. Wives and husbands listing "wanting a boy" or "wanting a girl" as a reason for wanting pregnancies expressed as percentages of all couples having pregnancy of given order, all couples wanting the pregnancy experienced, and all couples giving any reason for wanting the pregnancy.

ORDER OF PREGNANCY	NUMBER COUPLES HAVING THIS PREGNANCY	NUMBER WIVES OR HUSBANDS WANTING THIS PREGNANCY			NUMBER LISTING SEX PREFERENCE AS A REASON FOR WANTING PREGNANCY AS A PERCENTAGE OF NUMBER		
		Total	Giving Any Reason For Wanting	Listing Sex Preference As One Reason	Having This Pregnancy	Wanting This Pregnancy	Giving Any Reason For Wanting
WIVES							
First	1,323	839	806	42	3.2	5.0	5.2
Second	1,014	609	598	115	11.3	18.9	19.2
Third	515	211	203	55	10.7	26.1	27.1
Fourth	248	74	74	25	10.0	33.8	33.8
Fifth	108	21	21	6	5.6	28.6	28.6
HUSBANDS							
First	1,323 ^a	817	750	75	5.7	9.2	10.0
Second	1,014	636	601	163	16.1	25.6	27.1
Third	515 ^a	254	235	72	14.0	28.3	30.6
Fourth	248	85	82	30	12.1	35.3	36.6
Fifth	108	28	26	8	7.4	28.6	30.8

^a Includes one unknown with respect to wanting this pregnancy.

¹⁷ As a test of validation, records were examined for 33 wives having only three live births and listing desire for a boy or a girl as a reason for wanting the third pregnancy. Among 27 of these the first two children were either two boys or two girls. Twenty-three of the 27 had listed "boy and girl" as their preference as to sex of children if they could have only two.

sample. In this section an attempt will be made to test more inductively whether such preferences actually do affect the size of family.

As previously indicated, it may be assumed that preferences regarding the sex of children can have opposite types of effect upon fertility. For some couples, or at certain stages of the reproductive history, it may serve to increase the size of family. For other couples, or at other stages of the reproductive history, it may have a deterring effect. Much depends, of course, on whether the parents are successful in having children of the sex desired and on the importance attached to this desire.

In the following data two main categories are established with respect to fulfillment of preference as to sex of children. The "sex preferred" group consists of couples who received with the birth of their first child or first two children the sex or sexes that they stated they would like if they could have only one or two children. The "sex not preferred" group consists of couples who did not receive with the birth of their first child or first two children the sex or sexes preferred in the above provisional sense. For this part of the analysis the somewhat questionable assumption is made that the replies to the suppositional questions on preference as to sex of an only child and only two children represent the actual preferences as to sex of *the first child* and *first two children*. This was necessary, since these two questions are the only ones providing explicit indication of a preference for boys over girls or *vice versa*.

Figure 5 presents fertility rates¹⁸ for three groups of couples with one or more live births: (a) couples whose first child was of the "sex preferred" by the wife if she were to have only one child; (b) couples in which the wife expressed "no preference" as to the sex of an only child; and (c) couples in which the first child was of the "sex not preferred" by the wife if she were to

¹⁸ The fertility rate, number of live births per 100 couples, is used without further standardization by age of wife since the restriction to couples married during 1927-1929 (with wife under 30 and husband under 40 at marriage) affords a fairly uniform (12-14 years) duration of marriage among the couples in the Study. Eleven cases of adopted children among ten couples are considered as live births in this report.

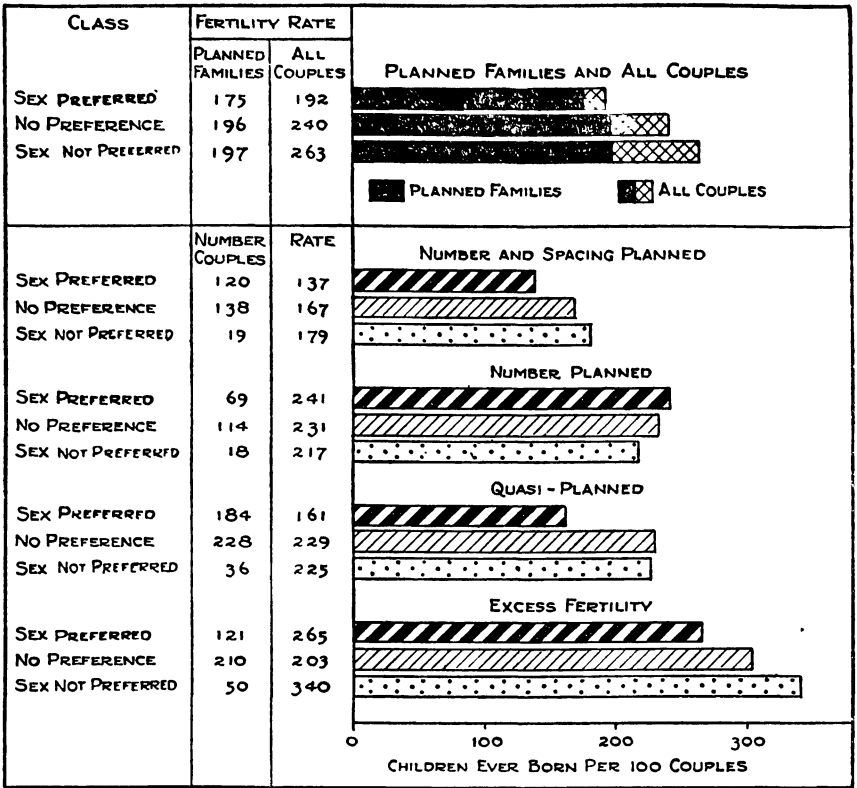


Fig. 5. Children ever born per 100 couples by fertility-planning status and presumed satisfaction of the wife as to sex of first child.

have an only child. In the top section of the chart the data are shown for all couples in these categories regardless of fertility-planning status (total length of bars) and also for all "planned families" ("number and spacing planned" and "number planned" combined—represented by solid sections of the bars). In the lower section the data are presented for couples in each of the four fertility-planning groups separately. Figure 6 presents corresponding data based upon preferences of the husband as to sex of an only child. Figures 7 and 8 present analogous data for couples having two or more live births by satisfaction of the wife and husband as to sex of the first two children.

Examination of Figures 5 and 6 indicates that among all couples in the Study having one or more children, the fertility

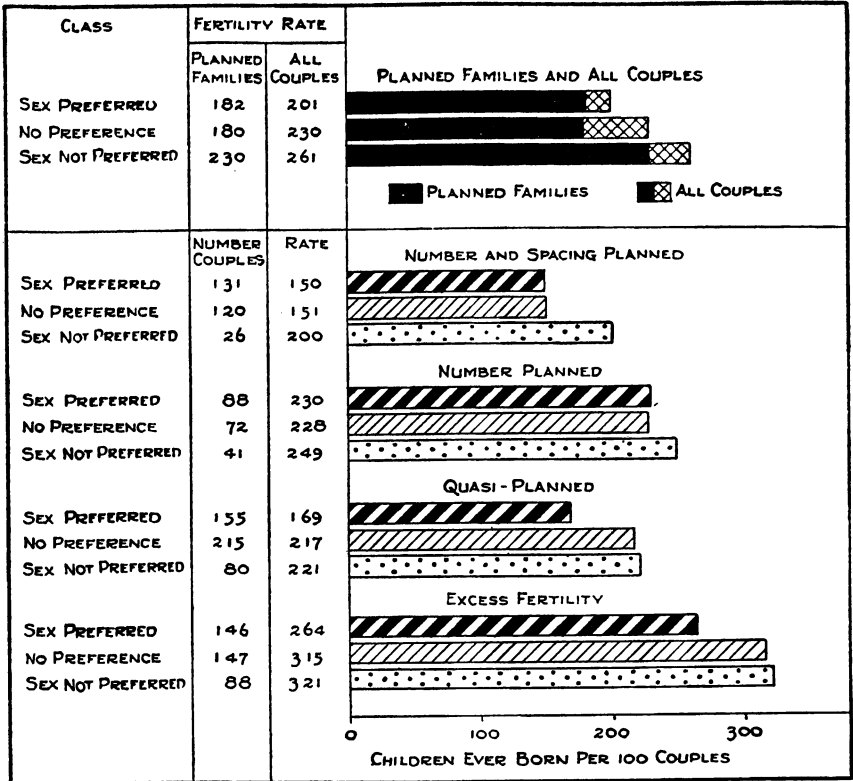


Fig. 6. Children ever born per 100 couples by fertility-planning status and presumed satisfaction of the *husband* as to the sex of first child.

rates are lowest for those whose first child was of the “sex preferred” in an only child, in intermediate position for couples expressing “no preference” as to sex of an only child, and highest for couples whose first child was of the “sex not preferred” in an only child. A similar situation is found with reference to the fertility of couples having two or more children, subdivided by presumed satisfaction as to sex of the first two children. (Figures 7 and 8.)¹⁹

In Figures 5 and 6 the above-described patterns are sharper for “all couples” than for “planned families.” This arises from exceptions to the pattern presented by the “number planned”

¹⁹ On the basis of standard errors of the distributions by number of live births the following results are found regarding significance of difference between mean number of live births among the “sex preferred” and “sex not preferred” groups

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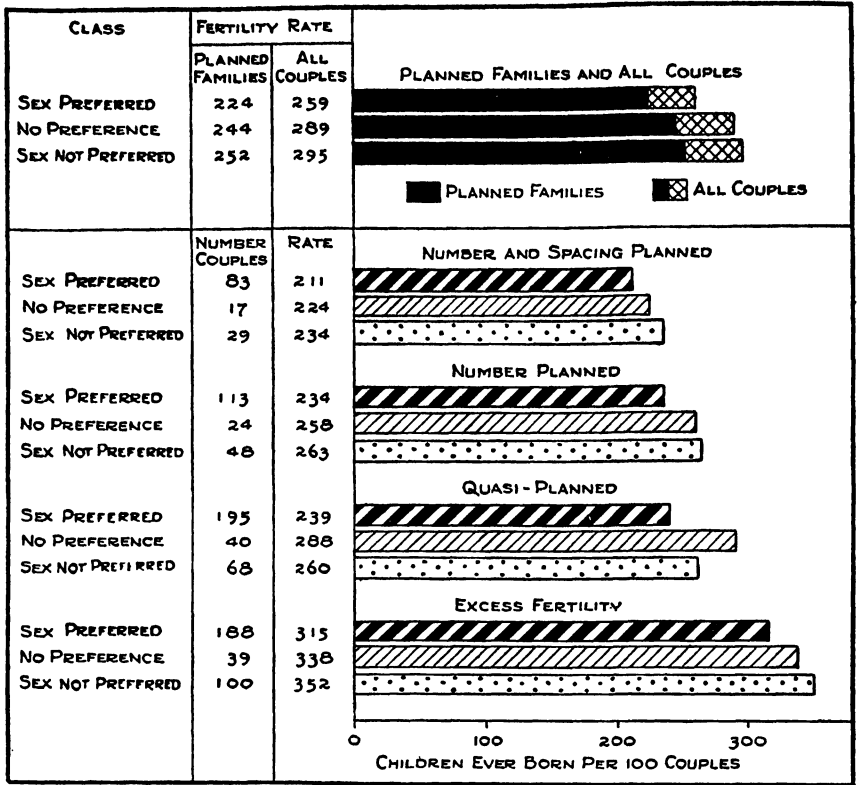


Fig. 7. Children ever born per 100 couples by fertility-planning status and presumed satisfaction of the wife as to sex of first two children.

couples which in turn may be due partly to sampling error. Aside from this, the fertility differentials described above with respect to satisfaction as to sex of the first child or first two children are rather consistently manifested within each fertility-

(VS= very significant, S= significant, N= not significant by criteria indicated in footnote 15):

"SEX PREFERRED"—"SEX NOT PREFERRED" COMPARISONS AMONG	FIRST CHILD	FIRST TWO CHILDREN
	Significance	
Wives (All Couples)	VS	VS
Wives (Planned Families)	N	S
Husbands (All Couples)	VS	VS
Husbands (Planned Families)	VS	N
Wives and Husbands Jointly Considered (All Couples)	VS	VS

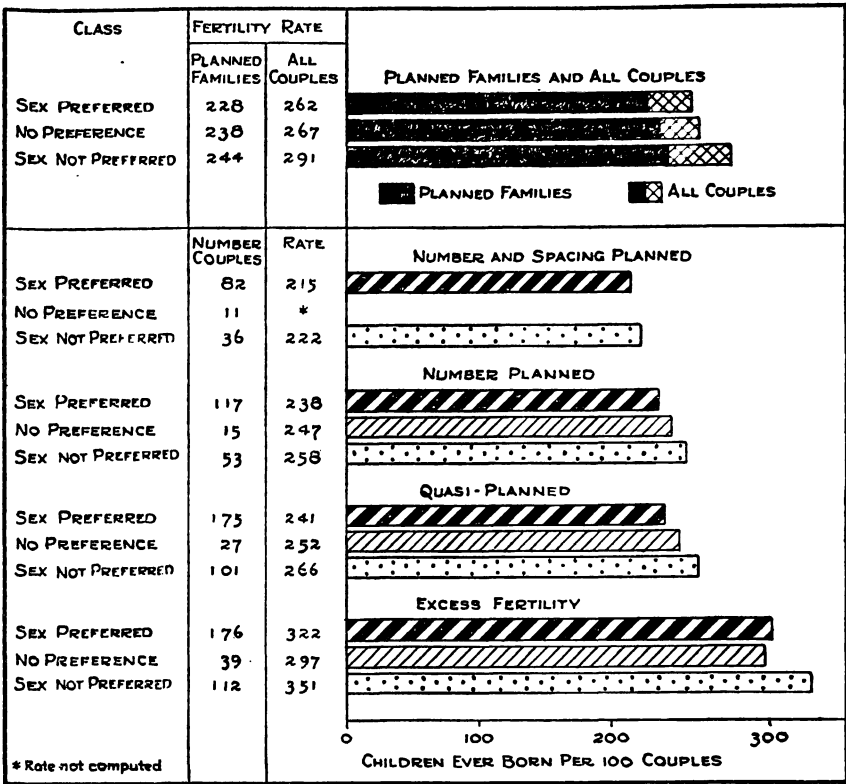


Fig. 8. Children ever born per 100 couples by fertility-planning status and presumed satisfaction of the husband as to sex of first two children.

planning group. In this connection it will be recalled that the present data failed to indicate differences by fertility-planning status in the frequency or direction of preferences regarding the sex of an only child or only two children (see Figure 1 and Appendices I and II).

In Figure 9 the classifications are based upon joint consideration of the wife and husband with respect to satisfaction as to sex of the first child (top section) and first two children (lower section).²⁰ Comparing first the fertility rates for three groups in each of which the husband and wife gave the same statement as to sex preferred in an only child, we find the lowest

²⁰ As before, the assumption is made that stated preferences as to sex of an "only child" and "only two children" represent the preferences as to sex of the first child and first two children, respectively.

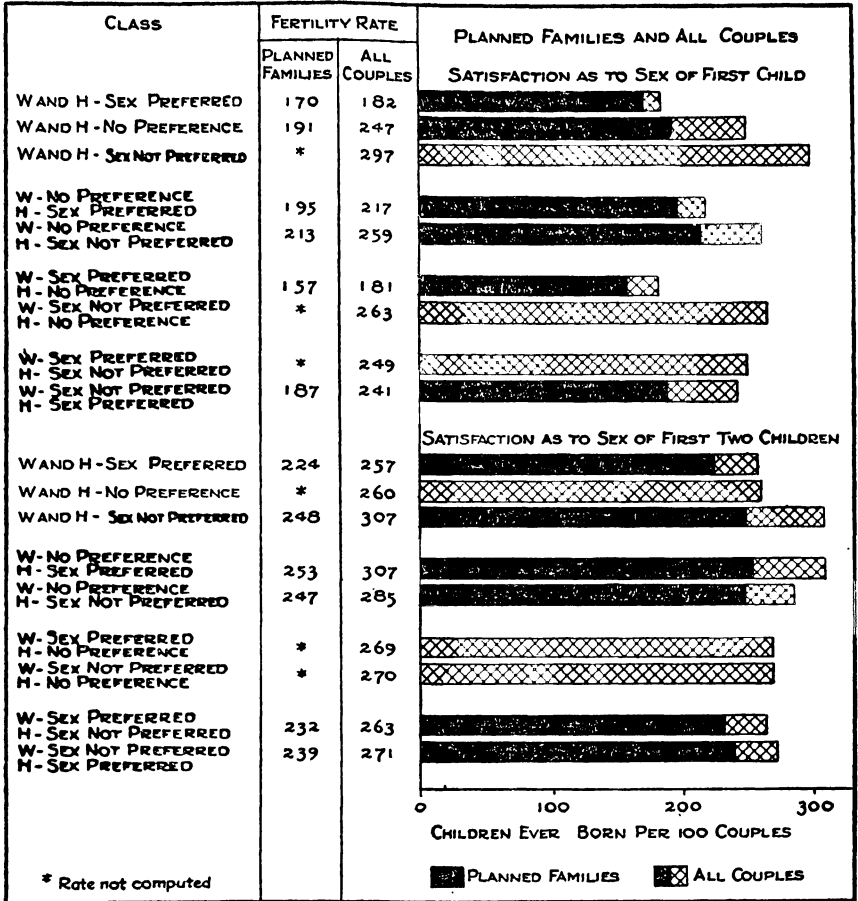


Fig. 9. Children ever born per 100 couples by presumed satisfaction of the wife and husband as to sex of first child and first two children. Rates shown for all couples and for planned families.

fertility rate (182) for couples having a first child of the “sex preferred” and highest fertility rate (297) for those whose first child was of the “sex not preferred.” Again the rate for couples expressing “no preference” is in intermediate position. These data afford no basis for saying that one spouse’s preference as to sex of children has more bearing on size of family than the other spouse’s preference.²¹

Although Figures 5–9 collectively seem to give fairly sub-

²¹ The numbers on which the fertility rates for all couples are based may be

(Continued on page 474)

stantial support to the hypothesis that preferences regarding the sex of children affect size of family, an underlying limitation is the possibility of selection inherent in the categories established. We have previously noted that the tendency for rationalization of replies as to sex preference of an only child and of only two children was especially strong among couples actually having only one child or only two children. Consequently the "sex preferred" categories are overweighted with small families by virtue of this type of selection. To eliminate the one or two-child families from the analyses, of course, also tends to eliminate couples who actually restricted family size because they had children of the sex wanted. Nevertheless, it is of interest to note that the fertility rates for all couples with *two or more* children are as follows for three groups established on the basis of wife's preference as to sex of an only child in relation to actual sex of the first child: first child of "sex preferred" 271; "no preference" as to sex of child 268; and first child of "sex not preferred" 295.

Another finding relevant to the interpretation of the low fertility of couples whose first or first two children were of the "sex preferred" is that concerning number of children wanted by the wife and husband at marriage. Figures 10-12 repeat fertility rates for some of the categories of couples presented in Figures 5-9 and include in addition "number of children wanted at marriage per 100 couples." In the first place, it will be noted that the professed number of children wanted at

found in Figure 12. The numbers in specified groups of planned families are as follows:

CLASS	SATISFACTION AS TO SEX OF	
	First Child	First Two Children
W. and H. Sex Preferred	105	162
W. and H. No Preference	116	50
W. and H. Sex Not Preferred	5	212
W. No Pref.—H. Sex Pref.	91	19
W. No Pref.—H. Sex not Pref.	45	17
W. Sex Pref.—H. No Pref.	67	12
W. Sex Pref.—H. Sex Pref.	23	5

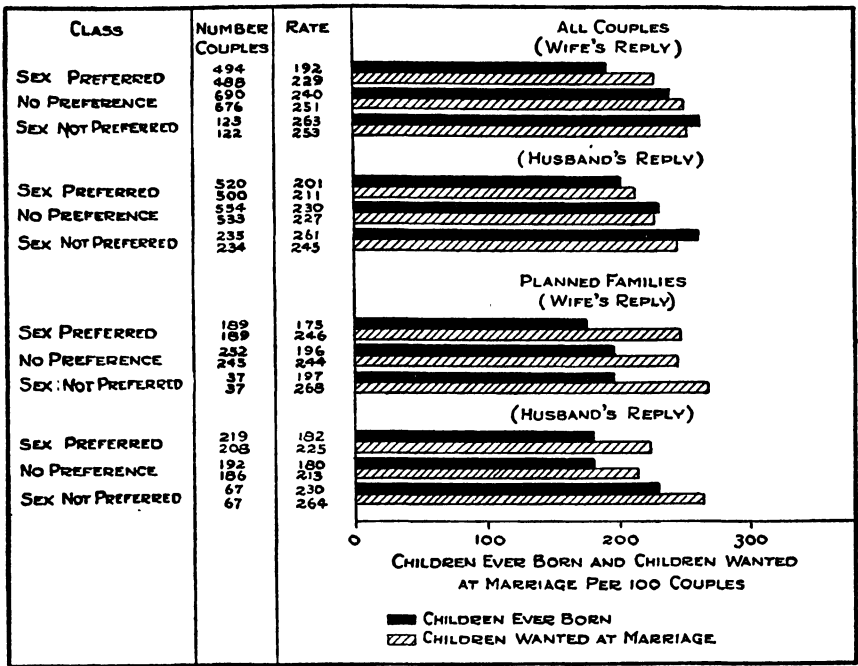


Fig. 10. Children ever born and children wanted at marriage per 100 couples, by presumed satisfaction of the wife or husband as to sex of first child.

marriage bears much the same relation as that of fertility rates to satisfaction as to sex of the first or first two children. This suggests strongly that the replies regarding number of children wanted at marriage may be colored by number of actual children just as the replies regarding sex preference are conditioned by actual sex of the children. The writers know of no reason why couples whose first child or first two children were not of the sex preferred should constitute a group actually wanting more children *at the time of marriage* than couples whose preferences were fulfilled.

On the other hand, the fact that there are differences between actual fertility rates and number of children wanted at marriage is evidence that some of the couples did discriminate between number of children originally wanted and number that they actually had. Furthermore, some of these differences follow a pattern that suggests a real bearing of preferences regard-

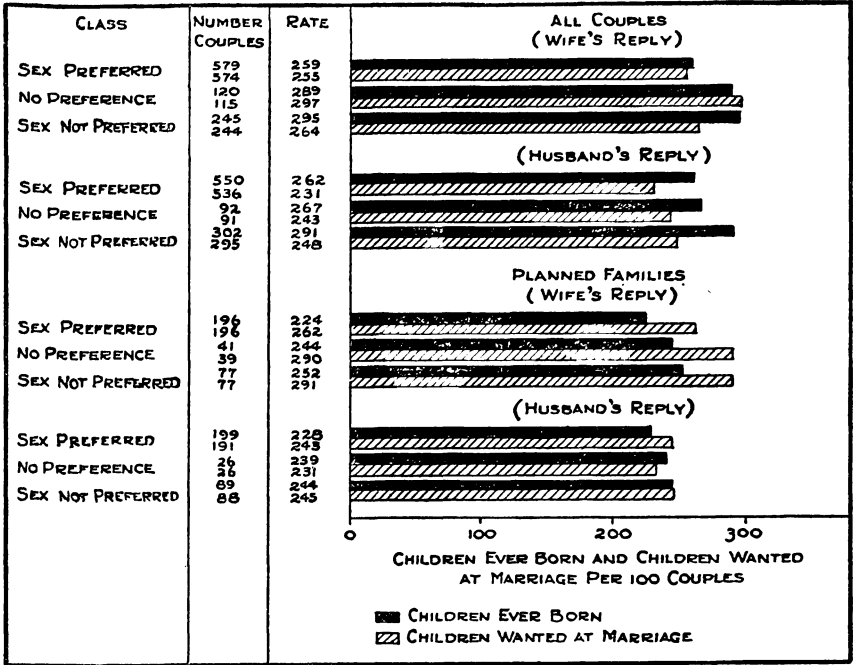


Fig. 11. Children ever born and children wanted at marriage per 100 couples, by presumed satisfaction of the wife or husband as to sex of first two children.

ing sex of children on fertility. It will be noted that among all couples classified on the basis of separate or joint consideration of the wives and husbands with respect to satisfaction as to sex of the first child (top sections Figures 10 and 12), the couples whose first child was of the "sex preferred" had fewer children on the average than they said they wanted at the time of marriage. The couples whose first child was of the "sex not preferred," in contrast, had more children on the average than they said they wanted at marriage. This type of contrast, however, does not appear among the "planned families" considered separately in the lower section of Figure 10; among these, actual fertility rates are universally and substantially below the numbers of children wanted at marriage. Furthermore, the contrast fails to appear in the classifications based upon satisfaction as to sex of the first two children.

As previously noted, about 47 per cent of the 1,309 wives

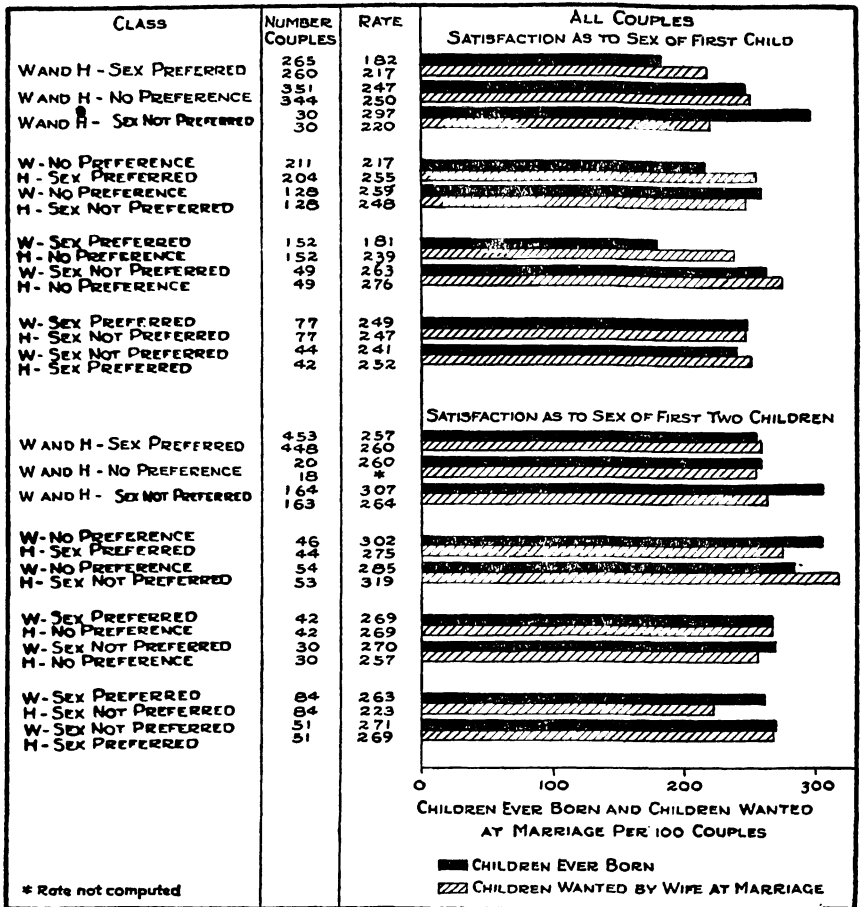


Fig. 12. Children ever born and children wanted at marriage per 100 couples, by presumed satisfaction of the couple as to sex of first child and first two children.

and 58 per cent of the husbands with one or more live births indicated that they would have a preference regarding the sex of an only child. Had this preference been recorded before the birth of the first child one would expect it to be the same as the actual sex of the first child in approximately 50 per cent of the cases. Some measure of the influence of the actual sex of the first child on the stated preferences is indicated by the fact that 80 per cent of the wives' preferences and 69 per cent of the husbands' preferences corresponded with the actual sex of the first child.

Table 12 presents fertility rates in relation to proportionate importance of certain subdivisions of couples whose first child was and was not of the sex that the wife or husband would prefer if they could have only one child. The classifications based upon fulfillment of the wife's preference are presented in Figure 13. First of all, it will be noted that nearly half (46 per cent) of the wives whose first child was of the "sex preferred" had only one child. In contrast, only 16 per cent of the wives whose first child was of the "sex not preferred" had only one child. Substantially the same type of difference (39 per cent as compared with 17 per cent) is observed in the classifications based upon the fulfillment of the husbands' preferences (Table 12). Likewise, among wives having two or more children and whose first two children were of the sex preferred, 66 per cent had only two children. In contrast, only 45 per cent of those whose first two children were of the "sex not preferred" had only two children (Figure 14). The corresponding percentages relating to

Table 12. Children ever born per 100 couples in specified subdivisions of groups whose first child presumably was and was not of the sex preferred by the wife or husband. Rates shown in relation to proportionate importance of the subdivisions within each group.¹

SATISFACTION AS TO SEX OF FIRST CHILD	WIFE			HUSBAND		
	Number of Couples	Per Cent	Fer- tility Rate	Number of Couples	Per Cent	Fer- tility Rate
<i>Sex Preferred</i>						
TOTAL	494	100.0	192	520	100.0	201
Had Only One Child	229	46.4	100	204	39.2	100
Had More Than One Child	265	53.6	271	316	60.8	266
<i>Sex Not Preferred</i>						
TOTAL	123	100.1	263	235	100.0	261
Had Only One Child	20	16.3	100	41	17.4	100
Last Child of Sex Preferred	37	30.1	227	74	31.5	241
Had Children After Received Sex Preferred	36	29.3	400	62	26.4	432
Never Had Child of Sex Preferred	30	24.4	253	58	24.7	216

¹ Subdivisions made on the basis of sex-order of live births and adoptions in relation to preference as to sex of an only child.

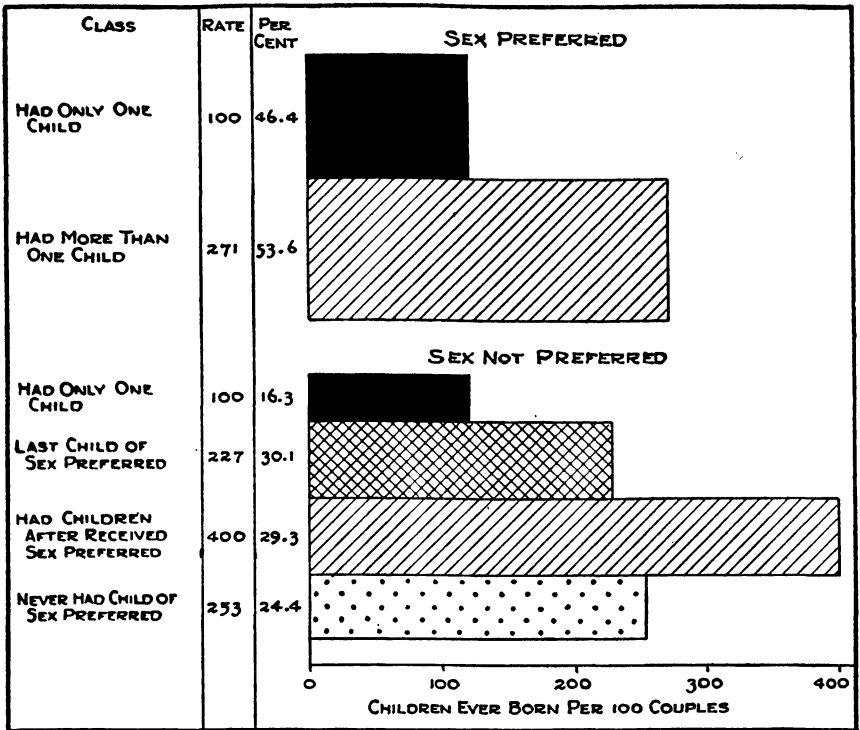


Fig. 13. Children ever born per 100 couples in specified subdivisions of groups whose first child presumably was and was not of the sex preferred by the wife. (The proportionate importance of the subdivisions within each group is indicated on the vertical scale. See Table 12.)

fulfillment of the husbands' preferences are 63 and 48 respectively (Table 13). To some extent the above contrasts may reflect a greater readiness to have no more children if the first child or first two children are of the "sex preferred" than if they are of the "sex not preferred." In large measure, however, the contrasts doubtless arise simply from the selective factors previously described, i.e., the undue selection of one-child and two-child families into the "sex preferred" rather than "sex not preferred" groups because of the strong tendency for these couples to reply to the suppositional questions in terms of their actual situation.²²

²² It is possible that many of these actually had no strong preferences as to sex of children but simply thought in terms of the actual children that they had. Thus, parents of one child might react immediately with the thought that if they could

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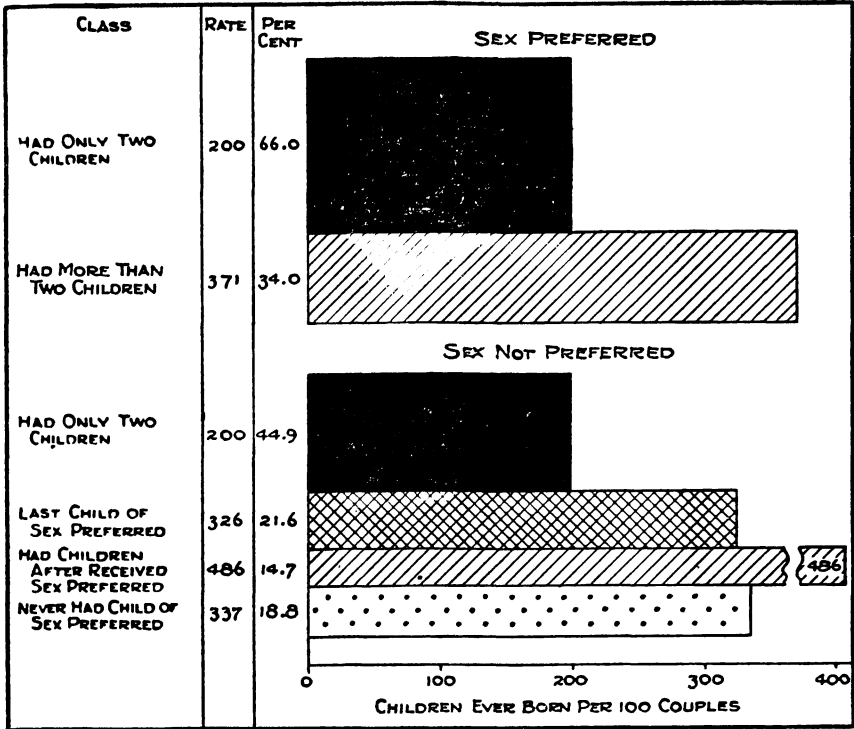


Fig. 14. Children ever born per 100 couples in specified subdivisions of groups whose first two children presumably were and were not of the sexes preferred by the *wife*. (The proportionate importance of the subdivisions within each group is indicated on the vertical scale. See Table 13.)

Perhaps the couples whose first child and first two children are not of the sex preferred, continue to have children until they do have one of the preferred sex and then have no more, constitute the prototype of those whose fertility is strongly affected by preference regarding sex of children. These groups are labeled "Last Child of Sex Preferred" in Figures 13 and 14 and Tables 12 and 13. There were 37 wives whose first child was not of the "sex preferred" if they could have an only child and who continued to have children until but not after they had one of the sex preferred. This group constitutes about 30 per cent of all wives whose first child was of the "sex not pre-

have only one child they still would want "John" or "Jane" and enter the appropriate sex in reply to the question. Likewise, parents of two children might think that they certainly would want John and Mary, John and Harry, or Jane and Susie if they could have only two children.

ferred” but less than 3 per cent of all wives with children. The 74 husbands in the similar category constitute about 32 per cent of all husbands whose first child was of the “sex not preferred” but less than 6 per cent of all husbands with children. Wives and husbands in this category exhibit fertility rates (227 and 241 live births per 100 couples respectively) that are higher than those for wives and husbands whose first child was of the “sex preferred” (192 and 201) but lower than those for the total group of wives or husbands whose first child was of the “sex not preferred” (263 and 261). The distribution of the 37 wives and 74 husbands by sex order of children born (Appendix VII), points up (a) the predominance of two-child families in these categories, and (b) the formerly-noted stronger preference for a son among husbands than among wives.

The two remaining categories represented in Figure 13 are

Table 13. Children ever born per 100 couples in specified subdivisions of groups whose first two children presumably were and were not of the sexes preferred by the wife or husband. Rates shown in relation to proportionate importance of the subdivisions within each group.¹

SATISFACTION AS TO SEX OF FIRST TWO CHILDREN	WIFE			HUSBAND		
	Number of Couples	Per Cent	Fer- tility Rate	Number of Couples	Per Cent	Fer- tility Rate
<i>Sex Preferred</i>						
TOTAL	579	100.0	259	550	100.0	262
Had Only Two Children	382	66.0	200	347	63.1	200
Had More Than Two Children	197	34.0	371	203	36.9	367
<i>Sex Not Preferred</i>						
TOTAL	245	100.0	295	302	100.0	291
Had Only Two Children	110	44.9	200	144	47.7	200
Last Child of Sex Preferred	53	21.6	326	58	19.2	324
Had Children After Received Sex Preferred	36	14.7	486	48	15.9	471
Never Had Child of Sex Preferred	46	18.8	337	52	17.2	340

¹ Subdivisions made on the basis of sex-order of live births and adoptions in relation to preference as to sex of only two children.

composed of wives whose fertility presumably was not substantially affected by preference as to sex of children, although the first child was of the "sex not preferred." The first of these is labeled "Had Children After Received Sex Preferred." This group, constituting 29 per cent of the wives whose first child was of the "sex not preferred" and approximately 3 per cent of all fertile couples, exhibited a higher fertility rate than that of any other group represented in Figure 13. Perhaps it would be more accurate to say that by definition this group tends to be selective of couples of high fertility. The last group of wives, labeled "Never Had Child of Sex Preferred" includes about 24 per cent of all wives whose first child was of the "sex not preferred" and only about 2 per cent of all wives with children. This group exhibits a fertility rate of 253 which is not much higher than that (227) for the group of wives labeled "Last Child of Sex Preferred." Furthermore, since this group is by definition composed of wives with at least two children each, it is apparent that only a small proportion of the wives within this small group were willing to "keep trying" for a child of given sex beyond the second or third child. Essentially the same situations as those described above are also found in the data relating to husband's satisfaction as to sex of the first child (Table 12) and in those relating to wife's or husband's satisfaction as to sex of the first two children (Figure 14, Table 13).²³

SUMMARY

In broad summary, the data from the Indianapolis Study support the hypothesis in the categorical form "preferences regarding the sex of children affect size of family" but they also indicate that this factor is not a *major* determinant of family size except among a small proportion of the couples.

²³ All of the couples represented in Figure 14 had two or more children. The two major categories, as before, are based upon joint consideration of preferences as to sex of children if the couple could have only two children and actual sex of the first two children. The subdivision labeled "Last Child of Sex Preferred" is composed of couples whose first two children were not of the sexes preferred and who continued to have children until, but not after, the sexes preferred were represented in the family. The actual distributions of wives and husbands in this category, by sex order of children, are given in the lower part of Appendix VII.

Approximately 53 per cent of the wives and 42 per cent of the husbands stated that they would have no preference as to sex of an only child. Among the remaining wives the proportion of preferences for a girl is slightly higher than that for a boy. Among the remaining husbands the preferences run heavily toward a son as an only child. Approximately two-thirds of the wives and three-fourths of the husbands stated that if they could have only two children they would prefer a *girl and a boy*.

The replies to the suppositional questions regarding preference as to sex of an only child and sexes of only two children tend to correspond with actual sex of first child and first two children and this is particularly strong among parents of only one child in the first instance and among parents of only two children in the second instance. Although this type of rationalization limits the value of the data for certain uses to which they have been put, it also points up the strong tendency for parents to be satisfied with sex of the children that they have. This tendency itself probably reduces the potential bearing of sex preferences in children on fertility.

Among 693 couples having living children of only one sex at the time of conception of the last child, about 10 per cent of the wives and husbands checked "wanting a girl if had only boys, or a boy if had only girls" as the reason of first importance in being encouraged to have the last pregnancy. About 33 per cent of the wives and 30 per cent of the husbands checked this reason as the one of first, second, or third importance.

Among the same group of couples about 34 per cent of the wives and 32 per cent of the husbands indicated in reply to another question that they had been "very much" or "much" encouraged to have their last child by reason of "wanting a girl if had only boys, or a boy if had only girls." The proportion giving these replies increased with *number* of children of similar sex prior to conception of last child.

Among 591 couples having a child of each sex at the time of the interview, 11 per cent of the wives and 14 per cent of the

husbands checked "already having a child of each sex" as the reason of first importance in not wanting another child. Forty-nine per cent of the wives and 48 per cent of the husbands listed this as the reason of first, second, or third importance. However, in reply to another question, only 20 per cent of the wives and 16 per cent of the husbands stated that "already having a child of each sex" discouraged them "very much" or "much" from having more children. The proportion giving these replies varied inversely with number of live births.

Under the assumption that the preferences regarding sex of an only child and sexes of only two children represent, respectively, the preferences regarding the first child and first two children, it may be stated that fertility rates are lowest for couples having sex preference fulfilled in the first child and first two children, in intermediate position for those expressing no preference, and highest for those not having sex preference fulfilled in the first child or first two children. Although these patterns may reflect some real relationship of sex preferences to fertility, there is evidence that they may arise in considerable part from selective factors. Couples actually having only one child or two children tend to be selected unduly into the group having sex preferences "fulfilled" because these couples especially tended to state preferences in terms of actual sex of their children.

Whatever may be the relative importance of selective and determinative factors in the high proportion of one and two-child families among couples whose preferences as to sex of an only child and only two children correspond with actual sex of the children, one feels rather safe in assuming that preferences regarding sex of children is an important determinant of fertility among couples whose first child or first two children were not of the sex preferred, who continued to have children until they did have one or two of the sex or sexes preferred, and then had no more. Three per cent of all couples with children fall into this category on the basis of the wife's preference and 6 per cent on the basis of the husband's preference with respect

to sex of an only child. Six per cent of all couples with two or more children fall into this category on the basis of wife's or husband's preference with respect to sexes of only two children.

Finally, despite their inadequacies, the present data do provide the basis for suspecting as untenable any assumption that preferences for sons are generally more important than preferences for daughters in American urban culture. They provide no basis for Sanford Winston's hypothesis that preferences for males are sufficiently important to result in higher sex ratios at birth for the country as a whole as contraceptive practice becomes more widespread. In fact the sex ratios among annual births since 1915 provide no suggestion of such a trend although there has been a substantial increase in the control of fertility since that time. According to the present data, sex preferences in children are by no means unilateral and among both wives and husbands the desire for at least one child of each sex appears to be the most common form of sex preference. Furthermore, the data suggest that most couples tend to be satisfied with the sex of the children they have and that sex preference is an important determinant of fertility among relatively few couples.

Appendix I. Percentage distribution of wives and husbands by stated preference as to sex of an only child, subdivided by fertility-planning status, index of socio-economic status and index of economic security.

CLASS	TOTAL		PER CENT OF WIVES REPLYING			PER CENT OF HUSBANDS REPLYING		
	Number	Per Cent	No Pref.	A Girl	A Boy	No Pref.	A Girl	A Boy
TOTAL	1,309 ^a	100	52.8	25.4	21.8	42.3	9.9	47.7
<i>Planning Status</i>								
<i>Number and Spacing</i>								
Planned	277	100	49.8	24.5	25.6	43.3	7.9	48.7
Number Planned	201	100	56.7	24.9	18.4	35.8	9.5	54.7
Quasi-Planned	450	100	50.9	29.7	19.4	47.8	10.7	41.6
Excess Fertility	381	100	55.1	21.3	23.6	38.6	10.8	50.7
<i>Index of SES</i>								
0-19 (High)	201	100	46.8	27.9	25.4	41.3	10.0	48.8
20-29	203	100	52.7	29.6	17.7	36.5	10.3	53.2
30-39	291	100	53.3	25.8	21.0	45.7	11.0	43.3
40-49	372 ^a	100	53.2	26.2	20.2	46.5	7.5	46.0
50+ (Low)	242	100	56.2	18.2	25.6	37.6	12.0	50.4
<i>Index of Economic Security</i>								
90+ (High)	107	100	59.8	25.2	15.0	43.0	0.9	56.1
80-89	242	100	49.6	31.4	19.0	49.2	9.9	40.9
70-79	329	100	53.8	22.5	23.7	44.4	8.5	47.1
60-69	296	100	56.4	19.9	23.6	39.9	11.5	48.6
50-59	206	100	49.5	26.0	24.5	43.7	11.7	44.7
40-49	96	100	46.9	29.2	24.0	24.0	12.5	63.5
Under 40 (Low)	33	100	48.5	45.5	6.1	36.4	21.2	42.4

^a Two unknowns as to sex preference for wife included.

Appendix II. Percentage distribution of wives and husbands by stated preference as to sex of only two children, subdivided by fertility-planning status, index of socio-economic status, and index of economic security.

CLASS	TOTAL		PER CENT OF WIVES REPLYING				PER CENT OF HUSBANDS REPLYING			
	Number	Per Cent	No Pref.	A Girl and a Boy	Two Girls	Two Boys	No Pref.	A Girl and a Boy	Two Girls	Two Boys
TOTAL	1,309	100	12.0	69.2	10.1	8.7	9.0	79.2	3.4	8.3
<i>Planning Status</i>										
Number and Spacing										
Planned	277	100	13.0	65.3	11.9	9.7	9.0	76.9	5.8	8.3
Number Planned	201	100	11.9	71.6	9.0	7.5	7.5	76.6	5.5	10.4
Quasi-Planned	450	100	12.4	68.2	10.0	9.3	8.2	84.4	1.6	5.8
Excess Fertility	381	100	10.8	71.9	9.4	7.9	10.8	76.1	2.9	10.2
<i>Index of SES</i>										
0-19 (High)	201	100	10.9	74.1	9.5	5.5	7.5	82.6	4.0	6.0
20-29	203	100	10.8	70.0	12.8	6.4	4.4	81.8	5.4	8.4
30-39	291	100	14.1	67.4	8.6	10.0	14.8	73.2	3.4	8.6
40-49	372	100	11.8	64.5	11.3	12.4	8.9	79.3	2.2	9.7
50+ (Low)	242	100	11.6	74.0	8.3	6.2	7.4	81.4	3.3	7.9
<i>Index of Economic Security</i>										
90+ (High)	107	100	12.1	76.6	7.5	3.7	7.5	86.9	0.0	5.6
80-89	242	100	5.4	76.4	11.6	6.6	7.0	81.0	2.9	9.1
70-79	329	100	15.8	64.1	8.8	11.2	13.7	73.3	3.6	9.4
60-69	296	100	15.2	67.2	11.5	6.1	9.1	79.4	3.7	7.8
50-59	206	100	9.2	70.9	9.7	10.2	4.9	83.0	5.3	6.8
40-49	96	100	12.5	60.4	11.5	15.6	5.2	81.3	2.1	11.5
Under 40 (Low)	33	100	9.1	75.8	6.1	9.1	18.2	69.7	6.1	6.1

Appendix v. Percentage distribution of couples having children of both sexes at the time of interview, by statements of wives and husbands on extent of discouragement from having more children because of already having children of both sexes, according to fertility-planning status, index of socio-economic status, and index of economic security of the couple.

CLASS	TOTAL		PER CENT DISTRIBUTION BY EXTENT DISCOURAGED					
			Wife's Statement			Husband's Statement		
	Num-ber	Per Cent	Very Much and Much	Some	Little and Very Little	Very Much and Much	Some	Little and Very Little
TOTAL	591	100	20.3	20.1	59.6	16.4	21.7	61.9
<i>Fertility-Planning Status</i>								
Number and Spacing								
Planned	60	100	21.7	25.0	53.3	26.7	25.0	48.3
Number Planned	108	100	24.1	10.2	65.7	15.7	25.0	59.3
Quasi-Planned	187	100	23.0	23.0	54.0	15.5	21.9	62.6
Excess Fertility	236	100	16.1	21.2	62.7	14.8	19.1	66.1
<i>Index of S.E.S.</i>								
0-19 (High)	83	100	19.3	22.9	57.8	31.3	24.1	44.6
20-29	84	100	41.7	13.1	45.2	14.3	34.5	51.2
30-39	92	100	12.0	8.7	79.3	14.1	27.2	58.7
40-49	171	100	22.2	24.6	53.2	14.0	18.1	67.8
50+ (Low)	161	100	12.4	24.2	63.4	13.7	14.3	72.0
<i>Index of Economic Security</i>								
90+ (High)	50	100	20.0	20.0	60.0	22.0	18.0	60.0
80-89	108	100	25.0	13.0	62.0	14.8	30.6	54.6
70-79	136	100	16.9	21.3	61.8	16.9	20.6	62.5
60-69	131	100	13.7	25.2	61.1	11.5	21.4	67.2
50-59	106	100	26.4	20.8	52.8	20.8	18.9	60.4
Under 50 (Low)	60	100	23.3	18.3	58.3	16.7	16.7	66.7

Appendix vi. Number of children ever born per 100 couples having children of both sexes at time of interview, by extent wife and husband were disinclined to have more children for this reason.

CLASS	WIFE		HUSBAND	
	Number Couples	Rate	Number Couples	Rate
TOTAL	591	296	591	296
Discouraged Very Much and Much	120	260	97	267
Some	119	272	128	276
Little and Very Little	352	316	366	311
<i>Planned Families</i>				
Discouraged Very Much and Much	39	231	33	239
Some	26	242	42	243
Little and Very Little	103	255	93	253
<i>Number and Spacing Planned</i>				
Discouraged Very Much and Much	13	*	16	*
Some	15	*	15	*
Little and Very Little	32	222	29	217
<i>Number Planned</i>				
Discouraged Very Much and Much	26	235	17	*
Some	11	*	27	241
Little and Very Little	71	270	64	269
<i>Quasi-Planned</i>				
Discouraged Very Much and Much	43	228	29	238
Some	43	242	41	246
Little and Very Little	101	290	117	278
<i>Excess Fertility</i>				
Discouraged Very Much and Much	38	326	35	317
Some	50	314	45	333
Little and Very Little	148	376	156	370

* Rate not computed.

Appendix VII. Sex order of children among couples whose first or first two children were not of the sex presumably preferred by the wife or husband, and who continued to have children until but not after the presumed preferences were fulfilled.

NUMBER AND SEX ORDER OF CHILDREN	WIFE		HUSBAND	
	Number	Per Cent	Number	Per Cent
	PREFERENCE AS TO SEX OF ONLY CHILD			
TOTAL	37	99.9	74	100.2
MF	17	45.9	4	5.4
FM	12	32.4	48	64.9
MMF	3	8.1	1	1.4
FFM	4	10.8	14	18.9
FFFM	0	0.0	5	6.8
MMMMF	0	0.0	1	1.4
FFFFM	1	2.7	1	1.4
	PREFERENCE AS TO SEX OF ONLY TWO CHILDREN			
TOTAL	53	100.1	58	99.8
MFF	1	1.9	1	1.7
MMF	22	41.5	22	37.9
FMM	1	1.9	0	0.0
FFM	19	35.8	22	37.9
MMMMF	3	5.7	5	8.6
FMFM	0	0.0	1	1.7
FFMM	0	0.0	1	1.7
FFFM	2	3.8	5	8.6
FMMF	1	1.9	0	0.0
MMMMF	1	1.9	0	0.0
FFMMM	1	1.9	0	0.0
FFFFM	2	3.8	1	1.7