

# SOCIAL AND PSYCHOLOGICAL FACTORS AFFECTING FERTILITY

XXXI. FEAR OF CHILDLESSNESS, DESIRE TO AVOID AN ONLY CHILD,  
AND CHILDREN'S DESIRES FOR SIBLINGS<sup>1</sup>

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WHEN the Study of Social and Psychological Factors Affecting Fertility was originally designed, a list of twenty-three hypotheses was formulated.<sup>3</sup> Most of these hypotheses deal with major variables such as socio-economic status, marital adjustment, interest in religion, etc., and their association with the degree of fertility planning and fertility. Some of the hypotheses, however, were restricted to variables which are more specific in nature in the sense of being confined to certain birth orders rather than to completed fertility. Two such hypotheses are:

- A. The desire to insure against childlessness is an important reason for having a second child; and
- B. The belief that an only child is handicapped is an important reason for having a second child.

It should be emphasized that both of these hypotheses relate only to the extent to which the fear of childlessness and the desire to avoid an only child are involved in the range of motivations affecting the desire to have a *second* child. A third hypothesis was stated in a more general form: C. "The interest of

<sup>1</sup> This is the thirty-first 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, New York. The Committee consists of Lowell J. Reed, Chairman; Daniel Katz; E. Lowell Kelly; Clyde V. Kiser; Frank Lorimer; Frank W. Notestein; S. A. Switzer; Warren S. Thompson; and P. K. Whelpton.

<sup>2</sup> From the Milbank Memorial Fund, the University of Michigan, and the Office of Population Research, Princeton University, respectively.

<sup>3</sup> See Whelpton, P. K. and Kiser, Clyde V.: Social and Psychological Factors Affecting Fertility. iv. Developing the Schedules and Choosing the Type of Couples and the Area to be Studied. The Milbank Memorial Fund *Quarterly*, October, 1945, xxiii, No. 4, pp. 394-396 (Reprint pp. 147-149).

children in, and their desire for, brothers and sisters affect the size of family.”

Since most of the questions relating to Hypotheses A and B were asked of the couple about their last child, the analysis pertaining to the second child must be confined to two-child families. The general focus in this report, however, is restricted to these motivations only as they relate to having a second child and not to the two-child family *per se*. A subsequent article will be devoted to a comparison of the entire range of specific reasons motivating various birth orders with particular attention to the family-building process and the question of whether certain motivations for first and second pregnancies are “predictive” of differences in completed family size. This present article, to reiterate, is limited to the three hypotheses listed above.

#### THE DATA

The data to test these three hypotheses were collected in the Indianapolis Study in 1941 from a sample of “relatively fecund” couples meeting the following eligibility requirements: husband and wife native white, both Protestant, married during 1927–1929, neither previously married, husband under 40 and wife under 30 at marriage, both at least eighth grade graduates, and residents of a large city most of the time since marriage.

Since the main section of this paper deals with some specific motivations for wanting and having the second child, as reported subsequent to its birth, it was decided that the analysis should be confined to those couples who deliberately planned this child.<sup>4</sup> It is only within the group of couples who deliberately planned their second child that we have behavioral evidence of some motivation operating to cause the couples to interrupt contraception in order to conceive. The distributions of replies to all of the questions relating to reasons for having the second child and to the questions pertaining to the hy-

<sup>4</sup> This group consists of two fertility-planning categories: *Number and Spacing Planned*, which is the classification of couples with no pregnancies that were not deliberately planned by stopping contraception in order to conceive and *Number Planned*, which includes couples whose *last* pregnancy was deliberately planned by stopping contraception in order to conceive, but who had one or more previous pregnancies under other circumstances.

potheses were analyzed by planning status and it was found that virtually every analysis indicated statistically significant differences between those couples who planned their second child and those who did not<sup>5</sup>—a fact that reinforces the validity of analyzing the responses of the “planners” only.

The analysis concerning the two-child families will therefore be confined to the 239 couples with one child living at the conception of the last child who deliberately interrupted contraception in order to conceive this child. In order to obtain an evaluation of the relative importance of the two hypotheses factors with other considerations motivating couples to have a second child, the distribution of replies of wives and husbands to a multiple-choice listing of the three most important reasons for having the last child is presented in Table 1. Because of

Table 1. Per cent distribution of three most important reasons for encouragement in having the last child for couples with two children who planned the last child.

REASON ENCOURAGED IN HAVING LAST CHILD	WIVES			HUSBANDS		
	First	Second	Third	First	Second	Third
Number of Couples <sup>1</sup>	233	233	233	237	237	237
PER CENT, TOTAL	100.1	100.1	100.1	100.0	100.0	100.0
Not Wanting an Only Child	31.8	26.6	20.2	29.1	19.8	13.5
A Strong Liking for Children	41.6	12.0	10.7	38.8	13.9	13.5
A Feeling that Children Bring Husband and Wife Closer Together	8.2	17.2	14.2	13.1	24.5	19.8
The Desire of Children for More Brothers and Sisters	4.7	12.4	14.2	2.1	4.6	10.1
Not to be Left Childless in Case of Death of Only Child	1.7	12.0	11.2	0.0	7.6	13.1
Wanting a Girl if Only had Boys, or a Boy if Only had Girls	6.4	7.7	9.9	3.8	5.5	9.3
The Traditional Belief that Married Couples Ought to have Children	3.9	5.6	6.4	6.8	13.1	9.7
A Desire to See what Own Children Would be Like	0.9	3.0	8.6	0.8	5.5	4.2
A Belief that it is a Religious Duty to have a Family	0.9	2.6	2.1	4.2	3.8	1.7
A Feeling that it is Important to Carry on the Family Name	0.0	0.9	2.6	1.3	1.7	5.1

<sup>1</sup> Includes only couples who gave all three most important reasons; six wives and two husbands are excluded from the total.

<sup>5</sup> Statistical significance in this report implies  $P \leq .05$ .

our previous restrictions concerning the sample, these replies refer to reasons for having a planned last child for two-child families. It is clear that "not wanting an only child" (Hypothesis B) figures prominently as a major encouragement for having the second (last) child. It ranks second for both wives and husbands as the first most important reason for encouragement in having the second child; it ranks first among wives and second among husbands as the second most important reason, and first for the wives and tied for second for the husbands as the third most important reason. By comparison, the reason "not to be left childless in case of death" (Hypothesis A) appears to be of far less importance. As the first most important

Table 2. Per cent distribution of replies of couples to hypotheses questions for couples with two children who planned the last child.

HYPOTHESIS A. "The desire to insure against childlessness is an important reason for having a second child."			HYPOTHESIS B. "The belief that an only child is handicapped is an important reason for having a second child."		
Thought second a comfort if first died. <sup>1</sup>			Thought first affected by second. <sup>2</sup>		
	Wives	Husbands		Wives	Husbands
Number <sup>5</sup>	239	239	Number <sup>5</sup>	239	239
PER CENT, TOTAL	100.0	99.9	PER CENT, TOTAL	100.0	99.9
Very Seldom	15.1	23.8	Much Worse Off	2.1	0.8
Seldom	6.3	10.0	Somewhat Worse Off	1.3	2.5
Sometimes	21.3	18.4	Neither Better Nor Worse Off	7.5	6.7
Often	13.8	16.3	Somewhat Better Off	20.1	25.9
Very Often	43.5	31.4	Much Better Off	69.0	64.0
Encouraged to have last not to be left childless. <sup>3</sup>			Encouraged to have last to avoid only child. <sup>4</sup>		
	Wives	Husbands		Wives	Husbands
Number <sup>5</sup>	233	235	Number <sup>5</sup>	235	233
PER CENT, TOTAL	100.1	100.0	PER CENT, TOTAL	100.1	100.1
Very Little	20.2	27.7	Very Little	4.7	3.4
Little	15.0	14.9	Little	5.1	5.2
Some	23.2	25.1	Some	11.1	20.6
Much	9.9	5.5	Much	11.1	21.5
Very Much	31.8	26.8	Very Much	68.1	49.4

<sup>1</sup> After your first child was born did you often think how much comfort a second child would be if the first died?

<sup>2</sup> How much were you and your husband (wife) encouraged to have your last child by the reason, if you had only one child, not to be left childless in case of its death?

<sup>3</sup> After your first child was born did you think he would be better or worse off if you had another child?

<sup>4</sup> How much were you and your husband (wife) encouraged to have your last child by the reason of not wanting an only child?

<sup>5</sup> Includes only couples with known replies.

reason for encouragement in having the second child it ranks seventh for wives and last for husbands (no husbands considered this the most important reason); it ranked in a tie for fourth among the wives and was fifth for husbands as the second most important reason and was third for wives and fourth for husbands as the third most important reason for encouragement in having the second child. It is pertinent to indicate that since most of these families presumably were planned as two-child families, the motivation of avoiding an only child is quite crucially focussed upon the having of the second child, probably more so than if these couples had planned to have additional children. Incidentally, it is of interest to note for the later analysis of total fertility that "the interest in and desire of the

Table 3. Per cent distribution of replies of couples to the indices for Hypotheses A and B for couples with two children who planned the last child.

HYPOTHESIS A. "The desire to insure against childlessness is an important reason for having a second child."

Rating of Extent Influenced in Having Second Child	Wives	Husbands
Number <sup>1</sup>	233	235
PER CENT, TOTAL	100.0	100.0
Very Little	12.4	23.0
Little	12.0	10.2
Some	28.8	29.4
Much	13.3	14.0
Very Much	33.5	23.4

HYPOTHESIS B. "The belief that an only child is handicapped is an important reason for having a second child."

Rating of Extent Influenced in Having Second Child	Wives	Husbands
Number <sup>1</sup>	235	233
PER CENT, TOTAL	100.0	99.9
Very Little	0.0	0.0
Little	1.3	1.7
Some	14.9	13.3
Much	11.5	19.7
Very Much	72.3	65.2

<sup>1</sup> Includes only couples with known replies to both questions from which index was constructed.

first child for a sibling" is of relatively little importance as an inducement to parents to have a second child.

There were two multiple-choice questions designed for each of the hypotheses. Table 2 includes the distributions of replies of wives and husbands to these four questions. The presumptive unidimensionality of the pairs of questions for the hypotheses was supported by the interrelationships among the four items. We can be reasonably confident that the pairs of questions are measuring the same motivation and that these are different from each other. Therefore, the pairs of questions were combined into single indices for each hypothesis, which simplifies the analysis as well as increases the reliability.<sup>6</sup>

The distributions of replies of wives and husbands for the two indices are presented in Table 3. An internal comparison of the replies again demonstrates that the "avoidance of an only child" is the most important of the two reasons cited for having a second child. Nearly three-fourths of the wives and two-thirds of the husbands state that they were "very much" influenced in having their second child for this reason. Not a single individual reported this reason to be of "very little" influence. One-third of the wives and one-fourth of the husbands report having been "very much" influenced to have a second child "by a desire to insure against childlessness."

These general findings are quite consistent when compared with the distributions revealed in Table 1, that is, the avoidance of an only child is of paramount importance while the fear of childlessness is considerably less important as a reason for having the second child. In the more detailed analysis of the two hypotheses dealing with the second child, below, an attempt will be made to examine some factors thought to influence the variability of responses.

#### THE DESIRE TO INSURE AGAINST CHILDLESSNESS

The positive statement of this hypothesis presupposes that a second child is motivated by the parents' fear of being left with-

<sup>6</sup> In constructing the indices, the five categories of each question were scored from 0 to 4 and the pairs of questions were cross-tabulated and the scores were summed. This yielded nine classes which were then reduced to five.

out any children in the event the first child should die. The underlying factor seems to be the degree that the couple fears the possible death of the first child. It is obvious that these couples did desire children since they had deliberately planned the second child. The *post factum* shortcomings of the data are especially felt in a discussion of this particular hypothesis because it can be assumed that at the time of the conception of the second child, with one child living, the conscious fear of the first child dying was remote. How much *more* remote this fear was when the couples were questioned *after* the birth of the second child can only be conjectured.

It has been indicated already that the desire to insure against childlessness is a relatively unimportant reason for having a second child. From Table 3 it can be seen that about 47 per cent of the wives and 37 per cent of the husbands cite this factor as having influenced them "much" or "very much" in having their second child. Since this motivation implies the fear of the first child dying, those couples who have had the experience of a child dying before obviously would be more aware of this possibility than those without such experience.

There were only ten couples among this group who actually had the previous experience of the death of a child, seven of whom said that they were "much" or "very much" influenced in having their second child by the desire to avoid childlessness. There were 40 couples, moreover, among whom the wives had three or more pregnancies in order to have two children. These couples experienced a loss through death (the 10 couples above), miscarriage, or still-birth and thus this group had experiences which should have made the thought of the possible loss of a child more prominent in their minds than the other couples. Of these 40 women, 60 per cent stated they were influenced "much" or "very much" by the fear of childlessness while 44 per cent of the women who experienced no loss so answered. The husbands of these women manifested no such differences. In general, the differences observed are not as great as might be expected by *a priori* reasoning.

Another factor thought to influence the “fear of childlessness” as a motivation for having the second child was the health of the first child. One might anticipate that couples whose first child was in poor health would be more concerned about possible childlessness, although it is recognized that there may be a wide gap between poor health and conscious parental fears of death. The health ratings of the first child consist not of detailed histories of illnesses but of the mother’s rating of the health of the first child “in infancy” (under 2 years of age) and “since infancy.” The ratings of the health of the first child both in infancy and since infancy are very high. An average health index for the first child was constructed by combining the two ratings of health “in” and “since infancy.”<sup>7</sup>

The Pearsonian coefficients of correlation between these health ratings and the replies of wives and husbands concerning the degree to which they were encouraged in having their second child by the desire not to be left childless (Hypothesis A Index) are all within the range of  $\pm .05$  in magnitude. It is obvious from these non-significant values that the wife’s perception of the health of her first child is not related to this variable, a fact that raises the possibility of a neurotic component in this related fear of childlessness for some of those persons who do cite this as an important reason. It is clear that the actual relationship, if any, that does exist between the health of the first child and the possibility of its death is not explicitly a motivational factor in the

<sup>7</sup> They are distributed as follows:

	<i>Health In Infancy Per Cent</i>	<i>Health Since Infancy Per Cent</i>	<i>Health Index Per Cent</i>
Number	235	233	233
Per Cent, Total	100	101	99
Excellent	63	48	44
Very Good	16	23	29
Good	11	18	6
Fair	7	9	11
Poor	3	3	9

For a detailed discussion of the health ratings and their relation to fertility see: Herrera, Lee F. and Kiser, Clyde V.: *Social and Psychological Factors Affecting Fertility*. XIII. Fertility in Relation to Fertility Planning and Health of Wife, Husband, and Children. The Milbank Memorial Fund *Quarterly*, July, 1951, xxix, No. 3, pp. 331-376 (Reprint pp. 575-620).



minds of the parents when they reconstruct their reasons for having a second child.

#### DESIRE TO AVOID HAVING AN ONLY CHILD

The desire to avoid having an only child is by far the most important reason for having a second child among the three hypotheses under consideration. It is evident that having an only child is considered disadvantageous among the general population. A recent public opinion poll indicated that 75 per cent of the general public consider "being an only child a disadvantage."

Although this is such a widespread "reason" for having a second child, some factors were expected to influence the proportions of couples who state that this reason influenced them "very much." Assuming that only-child families are conceived to be handicapped, we might assume that families who had more contact with only-child families would be more conscious of the attendant liability. There is evidence, for example, of a higher incidence of only-child families among the higher socio-economic groups.<sup>8</sup> For this reason, socio-economic status<sup>9</sup> (SES) was considered. (See Table 4.) It appears that both wives and husbands in the "high" socio-economic group are most concerned with avoiding an only child, which is possibly a manifestation of the greater awareness through education of the problematic potential of only-child families.

If the aversion to having an only child is increased by ex-

<sup>8</sup> The proportion of native-white, ever-married women in 1940 (the time of the present study) living in cities of 250,000 or more population, 40-44 years of age, who had only one child was 14 per cent for those who paid less than \$5.00 per month for rent and 25 per cent for those who paid \$100.00 and over. Computed from Table 57, United States Bureau of the Census: POPULATION, DIFFERENTIAL FERTILITY, 1940 and 1910, WOMEN BY NUMBER OF CHILDREN EVER BORN. Washington, Government Printing Office, 1945, pp. 178-179.

<sup>9</sup> The index of socio-economic status of the couple is derived from the equally weighted factors of the average annual earnings of the husband since marriage, monthly rental value of the home at interview, net worth of the couple, husband's longest occupation since marriage, purchase price of car, education of the husband and wife, and score on Chapin's Social Status Scale. For further description, 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. 214, 216, 244. (Reprint pp. 385, 387, 415).

INDEX OF SOCIO-ECONOMIC STATUS	WIVES		HUSBANDS	
	Per Cent Base	Per Cent	Per Cent Base	Per Cent
TOTAL <sup>1</sup>	235	72.3	233	65.2
0-1 (High)	55	89.1	51	90.2
2-3 (Medium)	102	67.6	102	52.0
4-6 (Low)	78	66.7	80	66.3

<sup>1</sup> Includes only couples with known replies.

Table 4. Proportion of couples "influenced very much" in having their second child by the belief that an only child is handicapped, for couples with two children who planned the last child by the socio-economic status of the couple.

perience, one might expect the number of siblings of the parents to affect their attitudes toward having an only child themselves. The proportions of wives and husbands influenced "very much" in having their second child in order to avoid having an only child by whether or not they were only children themselves and whether or not their spouses were only children is presented in Table 5. It is evident that the wives and husbands who themselves were only children do not consider this factor a great handicap; at least the proportions influenced "very much" in having their second child for this reason are not greatly affected by whether or not they themselves were only children. The proportions so influenced, however, are greater for those whose

Table 5. Proportion of couples "influenced very much" in having their second child by the belief that an only child is handicapped, for couples with two children who planned the last child, by whether or not the respondent was an only child and whether or not the spouse was an only child.

RATED AS INFLUENCED VERY MUCH	WIVES		HUSBANDS	
	Per Cent Base	Per Cent	Per Cent Base	Per Cent
<i>Number of Sociological Siblings of Respondent<sup>1</sup></i>				
None	22	77.3	34	55.9
One or More	209	72.2	199	66.8
<i>Number of Sociological Siblings of Respondent's Spouse<sup>1</sup></i>				
None	38	81.6	22	81.8
One or More	197	70.6	207	64.7

<sup>1</sup> Includes only couples with known replies

spouses were only children. It might be reasoned, although these differences are not statistically significant, that individuals who were only children themselves do not consider this situation a great handicap with respect to feelings toward their own offspring, whereas they might attribute faults perceived in their spouses to this type of environment.<sup>10</sup>

#### CHILDREN'S INTERESTS IN AND DESIRES FOR SIBLINGS

The third hypothesis under consideration is (Hypothesis C) "the interest of children in, and their desire for, brothers and sisters affects the size of family." The analysis of this hypothesis, by definition, has to be restricted to couples with at least one child living at the time of the last conception.<sup>11</sup> The couples did, of course, have varying numbers of previous children. The sample was restricted further to couples whose last conception was planned, for the same reason that the analysis of Hypotheses A and B were confined to this group—namely, that it is meaningless to attach the same significance to reasons offered by people for rational behavior with the "reasons" offered by couples for behavior that was admittedly "accidental." The effect of these two restrictions is to contract the range of fertility variation and to minimize the possibility of finding significant differences in fertility due to childrens' desires for siblings, or for that matter for any other variable.

Nevertheless, some minimal analysis was attempted. A tabulation was prepared for the purpose of assessing the significance of this motivation as one of the three most important reasons for having the last child, as compared to nine other reasons.<sup>12</sup>

<sup>10</sup> It was impossible to combine the only-child wives with the only-child husbands for further analysis because of the complete lack of correlation between the number of sociological siblings of wives and husbands. The Pearsonian product moment correlation for the sample under study was found to be  $-.01$ .

<sup>11</sup> It was found that for all couples in the Study the parents' replies indicated that the families with one child (no children living at the conception of the last child) manifested the greatest interest in and desire for siblings. Since these couples had no subsequent children, it is impossible to investigate the relationship between these interests and desires and the fertility of the couple. This suggests that (1) there was no demonstrable effect, and; (2) the only children were the most frustrated in terms of desires for siblings.

<sup>12</sup> See Table 1 for the identification of the ten reasons.

The "desire of children for brothers and sisters" ranked only sixth and seventh for wives and husbands as a first most important reason for having the last child (reported by only 5 and 2 per cent of wives and husbands respectively); it ranked fourth for the wives and seventh for the husbands as the second most important reason (offered by 11 per cent of wives and 6 per cent of husbands); and ranked third for the wives and fifth for the husbands only as the third most important reason. (15 per cent for wives and 11 per cent for husbands.) In comparison with the others, this particular reason is not cited as a very important one for having the last child.

Table 6. Per cent distributions of replies of couples to questions designed for Hypothesis C. "The interest in and desire of children for more brothers and sisters affects the size of family" and to the Hypothesis C Index for couples with two or more children who planned the last child.

EXTENT CHILDREN WANTED MORE SIBLINGS <sup>1</sup>			EXTENT ENCOURAGED TO HAVE LAST CHILD BY DESIRE OF CHILDREN <sup>2</sup>	
	Wives	Husbands	Wives	Husbands
Number <sup>3</sup>	300	300	300	298
PER CENT, TOTAL	100.0	99.9	100.0	100.0
Very Little	21.3	30.3	23.3	33.6
Little	15.3	12.0	13.7	18.1
Some	32.7	33.3	32.0	29.2
Much	8.7	11.3	8.7	7.7
Very Much	22.0	13.0	22.3	11.4

  

HYPOTHESIS C INDEX		
Rating of Extent Influenced in Having Last Child	Wives	Husbands
Number <sup>4</sup>	300	298
PER CENT, TOTAL	100.0	100.0
Very Little	21.7	27.5
Little	21.3	25.2
Some	22.3	25.8
Much	16.7	12.8
Very Much	18.0	8.7

<sup>1</sup> How much have your children wanted more brothers and sisters?

<sup>2</sup> How much were you and your husband (wife) encouraged to have your last child by the reason of the desire of your children for more brothers and sisters?

<sup>3</sup> Includes only couples with known replies.

<sup>4</sup> Includes only couples with known replies to both questions from which index was constructed.

Two multiple-choice items were formulated to measure the extent to which childrens' interests in and desires for siblings influenced their parents to have another child. These were: "How much have your children wanted more brothers and sisters?" and "How much were you encouraged to have your last child by the reason of the desire of your children for more brothers and sisters?" An index was constructed from the replies to both of these items following the procedure and meeting the standards described earlier. It is apparent from the distributions in Table 6 that although there is some indication that children had wanted brothers and sisters, there is little evidence of this factor exerting much influence on parents to have their last child.

The ultimate test of the hypothesis, however, is whether or not couples who reported that this was one of the three most important reasons for having their last child and who replied that they were positively influenced by their children's interest in and desire for siblings actually exhibited fertility differences compared to other groups. The evidence from Tables 7-8 clearly demonstrates that the hypothesis is unsupported. According to these data, children's interests in and desires for sib-

Table 7. The proportion of wives and husbands listing "the desire of children for more brothers and sisters" as one of the three most important reasons for having the last child, and the proportion of total births contributed by these couples.<sup>1</sup>

THE DESIRE OF CHILDREN FOR MORE BROTHERS AND SISTERS	FIRST		SECOND		THIRD	
	Wives	Births	Wives	Births	Wives	Births
Per Cent Giving Indicated Reason	5.1	5.2	10.6	10.7	15.0	15.5
Per Cent Base <sup>2</sup>	274	619	274	619	274	619
	Husbands	Births	Husbands	Births	Husbands	Births
Per Cent Giving Indicated Reason	2.2	2.1	5.5	5.8	11.3	11.5
Per Cent Base <sup>2</sup>	274	619	274	619	274	619

<sup>1</sup> Couples with one or more children living at the planned conception of the last live birth.

<sup>2</sup> Excludes eight couples with one child living and the wife pregnant at interview.

RATING OF EXTENT INFLUENCED IN HAVING LAST CHILD	WIVES		HUSBANDS	
	Number	Rate	Number	Rate
ALL COUPLES <sup>1</sup>	294	235	294	235
Very Little	65	234	82	212
Little	64	225	75	256
Some	67	248	73	234
Much	48	238	38	253
Very Much	50	232	26	227

<sup>1</sup> Includes only couples with known replies.

Table 8. Births per 100 couples by replies rated on index of influence in having last child by "the interests and desires for siblings of children" for couples with two or more live births who planned the last child.

lings have no significant effect on the fertility of their parents.<sup>13</sup> In Table 7 this is apparent from the negligible differences between the proportions claiming this motivation as the first, second, and third most important reason for having the last child and the proportion of total births contributed by these

<sup>13</sup> There is probably a selective factor operating which prevents adequate analysis with the available data. If it is assumed that children's desires for siblings could influence their parents to have another child it should also be assumed that these desires and this influence itself is dependent upon the number of children at the time of the subsequent conception. That is, the greater the number of children the less the likelihood of desire for siblings and the less the effect of these desires upon the parents. The data available for the present analysis pertains only to the last birth; a more reasonable test of the hypothesis would be to analyze the children's desires for siblings and its effect upon parents for each successive birth, controlled by the number of previous children. An indication of the comparative importance to the parents of the first child's desires for siblings upon the having of the second child can be found in Table 1. As the first of the three most important reasons for having the second child, it ranked fifth for wives and seventh for husbands; as the second most important reason it ranked third for wives and eighth for husbands, and was tied for second among wives and ranked fifth for husbands as the third most important reason for having the second child. The effect upon the size of family, of course, cannot be measured since these are all two-child families. Another factor to be considered in the analysis of the influence of the first child's desires for a sibling upon his parents having a second child is the age of the first child at the time of the conception of the second child. Effective verbal communication between the child and his parents probably does not commence until the child is three years old. It was found that among the two-child families who planned the last child, 66 per cent of the wives and 53 per cent of the husbands whose first child was three years old or more at the conception of the second child were rated as having been influenced "some," "much," or "very much" in having the second child by the interests and desires of the first child for siblings. By comparison, 35 per cent of the wives and 31 per cent of the husbands whose first child was under three years old at the conception of the second were so rated. This suggests that the desires of the first child for siblings may influence the parents in having a second child, especially where verbal communication is present. Unfortunately, the *ex post facto* design prevents successful analysis of the effect upon *total* fertility.

RATING OF EXTENT INFLUENCED IN HAVING LAST CHILD		NUMBER	RATE
Total Couples <sup>1</sup>		292	236
Wives	Husbands		
Very Little or Little	Very Little or Little	84	223
Very Little or Little	Some, Much, or Very Much	43	244
Some, Much, or Very Much	Very Little or Little	73	245
Some, Much, or Very Much	Some, Much, or Very Much	92	236

<sup>1</sup> Includes only couples where joint replies are known.

Table 9. Births per 100 couples by joint replies rated on index of influence in having last child by the interests and desires for siblings of children for couples with two or more live births who planned the last child.

couples. Fertility rates are presented by the hypothesis index in Table 8 and it is clear that no systematic differences appear. One further test of the hypothesis was attempted by cross-classifying wives and husbands by their index categories in order to examine whether couples in which both spouses gave positive replies differed in their fertility from couples who agreed that they were influenced little by their children's desires for siblings (*see* Table 9). Again, the evidence suggests a lack of any significant or systematic fertility differences.

The only conclusion that can be reached from this analysis is that children's interests in and desires for siblings is inconsequential in its effect upon fertility behavior. This must be qualified in the sense that the refinement of the sample seriously restricts the range of fertility variation so that large fertility differences could not have been expected under any circumstances.

#### SUMMARY AND CONCLUSIONS

Three of the original hypotheses from the Indianapolis Study were analyzed in this report. The first two specifically refer to the having of a second child and the third is concerned with total fertility. They are:

A. The desire to insure against childlessness is an important reason for having a second child.

B. The belief that an only child is handicapped is an important reason for having a second child.

C. The interest in and desire for brothers and sisters affects the size of family.

It was found that Hypothesis B, "The belief that an only child is handicapped is an important reason for having a second child," is a major reason for having the second child for all of the couples included in the analysis. The importance of this motivation is somewhat greater for those couples who presumably had secondary contact with only-child families, that is, those classified as members of the "high" SES level and those whose spouses were only children, although it is cited as a major reason by virtually all of the couples. By comparison, Hypothesis A, "The desire to insure against childlessness is an important reason for having a second child," was determined to be of only minor importance by the replies of the couples. There is some differentiation within the sample of the significance of this motivation for having a second child, notably that it is of greater importance in the case of couples with some previous experience or conscious awareness of the possibility of being left childless (the questions were asked *after* there were two living children), although in no case can it be inferred that the data support the hypothesis that this is a major reason for having the second child.

The third hypothesis discussed, Hypothesis C, "The interest in and desire for brothers and sisters affects the size of family," appears to be of no importance in having the last child. There are no observable differences in the fertility behavior of couples who cite this reason as having been of positive influence. Moreover, the proportions that report this reason as of primary importance are negligible.

In general, therefore, it may be inferred that Hypothesis A is supported only to a slight extent. This hypothesis as stated cannot, of course, be negated except in comparative terms and the number of reasons for having the second child is consider-



able. In other words, the final evaluation of its importance has to be somewhat arbitrary.

Hypothesis B appears fully supported, in so far as the comparisons of this with other reasons are possible with the available data. It is evident that the desire to avoid having an only child is a most important reason for having the second child. It ranks at the head of the three most important reasons listed and a large majority report themselves as having been "very much" influenced in having their second child for this reason. No doubt part of the popularity of this reason is due to the almost "cliché" nature of the feeling in modern child psychology doctrines.

The wording and implications of the third hypothesis investigated permits a workable method of testing whether or not "The interest in and desire of children for brothers and sisters 'affect' the size of the family." That is, an examination of fertility rates by how couples reported having been influenced by this factor permits some assessment of its importance. In other words, is there any variability in fertility attributable to the expressed attitudes concerning this reason; is this motivation a source of differential fertility? The answer is clearly negative. There are no meaningful differences in the number of children born to couples that state this reason as the first, second, or third most important for having the last child, or who report that they were positively motivated by a consideration of this factor.

All three of the hypotheses analyzed refer to motivations as they reportedly affect behavior. For the first two hypotheses, the object was to determine the extent to which two selected reasons affected the having of a second child. The third hypothesis was designed to explore the effect of a specific motivation on size of family. Since these data are *ex post facto* we were, in effect, examining the "importance" of reasons for having a child *after* the child was already born. Therefore, we cannot actually ascertain the "effect" of any of the particular reasons upon having the child. All that we are measuring is the

parents' stated recollections of reasons for having done something that had been, in fact, accomplished prior to the time the questions were asked. Thus, a cause-effect conclusion is precluded. It is only by inference that we can suggest the possible effects of the reasons cited.

This problem simply underscores the general limitations of the *ex post facto* dilemma which has so often plagued interpretations of the Indianapolis data. This problem is compounded by the use of the multiple-choice questionnaire technique which is particularly vulnerable in the analysis of motivations, since it ignores the fact that motivations are extraordinarily complex in both range and intensity and may frequently involve subconscious levels.