

# VOLUNTARY AND INVOLUNTARY ASPECTS OF CHILDLSSNESS

CLYDE V. KISER<sup>1</sup>

**T**HE Book of Genesis documents the existence of barren women in early Biblical times. Despite the age-old character of the problem, we know little about the incidence of actual sterility today. There are some data regarding proportions childless among marriages of completed fertility, but such figures leave unanswered the question concerning the extent to which such childlessness is voluntary and the extent to which it represents physical inability to bear a child. In view of the researches of Reynolds and Macomber<sup>2</sup> and others, it must be recognized at the outset that sterility is a relative term. There is not in all cases a clear line of demarcation between voluntary and involuntary childlessness, and there is a small but constant passage of childless women from the former into the latter category. Despite this, few will deny the meaningful nature of voluntary and involuntary childlessness among families of completed fertility, and the dearth of knowledge of the relative importance of these factors is often lamented by students of medical problems, students of population, and by social scientists in general.

Two investigations bearing directly upon this question appear to have yielded diametrically opposite results. On the one hand, an analysis presented by Lorimer and Osborn<sup>3</sup> has given suggestive evidence that from two-thirds to three-fourths of the 60 childless

<sup>1</sup> From the Milbank Memorial Fund. The author wishes to express his indebtedness to the National Committee on Maternal Health for its active assistance in collecting data for this study. He is particularly grateful to Raymond Squier, M.D., of that organization. A somewhat briefer version of this paper was read at the meetings of the American Philosophical Society held in Philadelphia, November 18-19, 1938, and is to be published in the proceedings of that meeting.

<sup>2</sup> Reynolds, E. and Macomber, D.: FERTILITY AND STERILITY IN HUMAN MARRIAGES. Philadelphia, W. B. Saunders Co., 1924, p. 158 ff.

<sup>3</sup> Lorimer, F. and Osborn, F.: DYNAMICS OF POPULATION. New York, The Macmillan Company, 1934, pp. 257-258.

women of completed fertility included in the Davis<sup>4</sup> series may be described as involuntarily childless. In contrast are the findings reported by Popenoe<sup>5</sup> who "asked more than 100 adult students at the . . . University of Southern California to list all the cases of permanent childlessness that they knew among their closest friends and relatives, selecting only such marriages as they felt sure would at no time in the future produce children, and only those couples whom they knew so intimately that they felt no doubt as to the motivation of childlessness." Of 862 histories of couples contributed, two-thirds were listed as voluntarily childless. Women of superior social status predominated in this group as well as in that studied by Lorimer and Osborn. Popenoe's sample was considerably larger but appeared to be unduly weighted by women who were pursuing a career. In regard to this situation, Popenoe stated: "This classification is large because so many of my students are teachers, social workers, and the like, and report the cases of their own friends in the professions." The authors of both studies are cautious in the evaluation of their results and emphasize the need for further investigation along this line.

An opportunity to assay the problem in New York City has been provided through the cooperation of the National Committee on Maternal Health. It should be emphasized, however, that this study was mainly experimental from the outset, and that the final usable sample was small, was confined to New York City, and was not otherwise free from limitations. On the other hand, the data possess certain advantages over those collected in the two investigations previously mentioned.

#### NATURE OF DATA FOR THE PRESENT STUDY

The present study was prompted by the availability of family records from a health survey in which the Milbank Memorial Fund

<sup>4</sup> Davis, Katherine B.: *FACTORS IN THE SEX-LIFE OF TWENTY-TWO HUNDRED WOMEN*. New York, Harper and Bros., 1929.

<sup>5</sup> Popenoe, Paul: *Motivation of Childless Marriages*. *The Journal of Heredity*, December, 1936, xvii, No. 12, pp. 469-472.

participated during the fall and winter of 1935-1936. That sample covered 48,000 households in New York City and is believed to be fairly representative, for it purported to include every thirty-sixth domicile listed in the Real Property Inventory's file of occupied houses and apartments in New York City. In that survey a census of persons in the household was the starting point for the present supplementary study of childlessness. It was not possible to identify couples who had never borne a child but it was possible to recognize heads of households and their wives who reported no children in residence. Such couples were chosen for further investigation if they were white, if the wife was under fifty years of age, and if the couple had been married ten years or more (as determined by length of time household had been established). These restrictions served to eliminate elderly couples whose children had left home, and young childless couples who were likely to have children in the future; and they automatically ruled out the possibility of including women who were forty years of age or older at marriage. The names, addresses, and descriptive data concerning socio-economic status were copied for 2,250 couples meeting the above requirements and residing in the four main boroughs of the city. These cases are designated in Table 1 as "original transcripts."

Two methods of study were utilized—the mailed questionnaire and the interview. The plan adopted was to solicit required data from the total group by a mailed questionnaire and later to conduct

Table 1. Distribution by borough of original transcripts, clients receiving questionnaire form and clients returning form by mail.

	FOUR BOROUGHES	BROOKLYN	BRONX	MANHATTAN	QUEENS
ORIGINAL TRANSCRIPTS	2,250	668	449	657	476
No Contact	273	78	54	109	32
Clients Receiving Form	1,977	590	395	548	444
Clients Returning Form	159	43	37	49	30
Per Cent Replies	8.0	7.3	9.4	8.9	6.8

personal visits among a random group of women who had not replied by mail.

The questionnaire adopted provided for entries concerning age, years married, whether or not the wife had ever borne a child and, if not, whether she had ever been pregnant. The women who had never experienced a pregnancy were asked to check one of three stated possibilities with respect to the extent of contraceptive practice since marriage. Provisions were also made for indicating whether the failure to have a child had been a disappointment and whether the childless women had ever gone to a doctor to learn why they could not have a child. The recipients were not required to sign their names but a system of identification was devised whereby it was possible to match the returned questionnaires with the descriptive data on the original transcripts and hence to test the socio-economic representativeness of the women who replied by mail.

As shown in Table 1, of the 2,250 women represented in the original transcripts, 1,977 presumably received the questionnaires by mail. The remaining 273<sup>6</sup> were not reached because they had moved without leaving a forwarding address. Of the 1,977 reached by mail, only 159 (or 8 per cent) filled in and returned the questionnaire. Furthermore, since the group of women who sent replies by mail was found to be unduly weighted by individuals of superior socio-economic status, the necessity of another approach was clearly indicated.

As shown in Table 2, a sample of 617 women was drawn at random for the follow-up investigation by personal interview. Two carefully chosen trained nurses<sup>7</sup> were employed to do this field

<sup>6</sup> These include the instances in which no delivery was attempted by virtue of previous clearance of addresses for Brooklyn, Bronx, and Manhattan prospects through the two central post offices serving those boroughs, and also include the unsuccessful attempted deliveries represented by the returned, unopened envelopes marked "not living at this address." The questionnaires were sent out during the summer of 1937, between one and two years after the original survey.

<sup>7</sup> The writer wishes to express his indebtedness to Miss Jean Aldrich, R.N., and to Miss Maude Lyle, R.N., for their competent work.

	FOUR BOROUGHES	BROOKLYN	BRONX	MANHATTAN	QUEENS
Clients Receiving Form	1,977	590	395	548	444
Number in Random Sample	617	173	117	194	133
Per Cent in Random Sample	31.2	29.3	29.6	35.4	30.0

Table 2. Number of women drawn at random for follow-up study, by borough.

work during the fall and early winter of 1937-1938.

Upon completion of the nurses' visits we had from the 617 women in the random sample a total of 459 usable schedules, 405 of which were supplied by nurses and 54 of which were mailed replies. As indicated in Table 3, the total figure represents 74 per cent of the random sample for the four boroughs combined. No schedules

Table 3. Number of returns from women in the random sample follow-up and reasons for failures to secure returns.

ANALYSIS OF RETURNS AND NON-RETURNS	FOUR BOROUGHES	BROOKLYN	BRONX	MANHATTAN	QUEENS
NUMBER OF WOMEN					
TOTAL IN RANDOM SAMPLE	617	173	117	194	133
Returns Secured	459	149	100	130	80
<i>By Mail</i>	54	16	14	14	10
<i>From Nurses' Visits</i>	405	133	86	116	70
Returns Not Secured					
Client Had Moved	71	12	11	26	22
Not Found at Home <sup>1</sup>	40	1	—	18	21
Refused	44	11	6	18	9
Deceased	3	—	—	2	1
PER CENT					
TOTAL IN RANDOM SAMPLE	100.0	100.0	100.0	100.0	100.1
Returns Secured	74.4	86.1	85.5	67.0	60.2
Client Had Moved	11.5	6.9	9.4	13.4	16.5
Not Found at Home	6.5	.6	—	9.3	15.8
Refused	7.1	6.4	5.1	9.3	6.8
Deceased	.5	—	—	1.0	.8

<sup>1</sup> Not found at home but living at address.

were secured for the remaining 26 per cent for reasons indicated in the table. Table 3 also shows that the field work was not uniformly successful in the four boroughs, the percentage of returns extending from 60 per cent in Queens<sup>8</sup> to 86 per cent in Brooklyn.

#### REPRESENTATIVENESS OF THE RETURNS

Since the nurses did not succeed in procuring all required returns, questions arise concerning the type of bias involved as compared with that observed for the mailed replies. The original transcripts (first column in Tables 4 and 5) provide a norm with which the mailed replies and the random sample (second and third columns respectively) may be compared. It is evident from Table 4 that the mailed replies and the interviewed cases were representative in regard to nativity of the wife. Both types of returns were also fairly satisfactory with respect to age of wife and age of wife at marriage. In so far as socio-economic status is concerned, the women who granted interviews were more representative than were those who replied by mail. (*See* Table 5.) The bias that did exist, however, was in a direction opposite to that observed among women who replied by mail. In other words, the nurses failed to secure the expected quota of schedules from women in the upper classes and consequently their returns were weighted somewhat by women in the lower strata.

By virtue of the above type of counter-bias, the combination of all returns secured by mail and through nurses' visits, a total of 564, affords a sample closely resembling the original universe in so far as descriptive and socio-economic attributes are concerned. (Com-

<sup>8</sup> It will be noted that in Queens a relatively high proportion of women were designated as "not found." This proportion would doubtless have been lowered somewhat had it been possible to devote as much time to revisits as was possible in the remaining boroughs where five or six recalls were often made (including some evening and Sunday work). The nurses' visits, however, were terminated when both resigned to take permanent positions elsewhere. Preliminary analysis of the type presented in Figures 1-4 indicated that the combination of the nurses' records with the replies sent by mail yielded a group closely similar to the original universe in so far as socio-economic status is concerned; so it was not deemed necessary to hire a new person for purposes of reducing the number of women designated as "not found" in Queens.

pare first and last columns, Tables 4 and 5). The similarity in the composition of the two groups, with respect to age of wife and age of wife at marriage, is apparent from virtually identical lengths of the solid and shaded bars in Figure 1. Likewise, Figure 2 presents the comparative distributions with respect to family income and monthly rental; Figure 3 with respect to occupation of the husband, and Figure 4 with respect to educational attainment of the husband and wife.

Table 4. Percentage distribution by nativity, age, and age at marriage for specified groupings of women in the survey.

	TOTAL ORIGINAL TRANSCRIPTS	TOTAL MAILED REPLIES	RETURNS IN RANDOM SAMPLE	TOTAL RETURNS
Number in Samples	2,250	159	459	564
Percentage Distribution By				
<i>Nativity of Wife—Total</i>	100.0	100.0	100.0	100.0
Native	57.8	56.6	55.6	55.1
Foreign	42.2	43.4	44.4	44.9
<i>Age of Wife—Total</i>	100.0	100.0	100.0	100.0
25-29	2.0	3.1	1.3	1.6
30-34	11.6	16.4	8.7	10.5
35-39	24.5	25.2	22.7	23.2
40-44	28.6	26.4	32.0	30.1
45-49	33.3	28.9	35.3	34.6
<i>Age of Wife at Marriage—Total</i>	100.0	99.9	99.9	100.0
Under 20	20.2	18.2	20.7	20.6
20-24	39.2	44.0	36.3	38.6
25-29	26.6	28.3	29.8	28.5
30-34	10.0	7.5	8.5	8.2
35-39	4.0	1.9	4.6	4.1
<i>Base—Number of Cases Attribute Known</i>				
Nativity of Wife	2,250	159	459	564
Age of Wife	2,250	159	459	564
Age of Wife at Marriage	1,252*	159	410	515

\* For cases represented in the original transcripts but not in the returns, it was necessary to rely altogether upon the entry "years household established". This was virtually equivalent to "years married" but the enumerators often exercised their privilege of simply recording "10+" if the household had been established 10 years or more. Such cases could not be used in the above analysis of age at marriage.

	TOTAL ORIGINAL TRANSCRIPTS	TOTAL MAILED REPLIES	RETURNS IN RANDOM SAMPLE	TOTAL RETURNS
Number in Samples	2,250	159	459	564
Percentage Distribution By				
<i>Family Income—Total</i>				
\$3,000 and Over	100.1	100.0	99.9	100.0
2,000-2,999	13.0	18.8	10.6	11.5
1,000-1,999	17.1	24.8	20.6	21.8
Under 1,000	43.8	37.6	40.7	40.4
	26.2	18.8	28.0	26.3
<i>Rent per Month—Total</i>				
\$75 and Over	100.1	99.9	99.9	100.1
50-74.99	9.0	14.3	7.5	8.3
30-49.99	16.5	12.0	14.8	14.6
Under 30	48.2	54.1	48.0	49.6
	26.4	19.5	29.6	27.6
<i>Occupation of Head—Total</i>				
Professional	100.0	100.0	100.0	100.0
Business	10.6	21.4	9.8	11.7
Skilled	39.6	42.8	38.0	38.4
Unskilled	39.0	28.3	40.0	38.5
	10.8	7.5	12.2	11.4
<i>Education of Head—Total</i>				
Entered College	100.1	100.0	100.1	100.0
Entered High School	16.1	29.3	13.6	16.6
Entered 7th-8th Grade	26.9	21.7	26.0	25.3
Under 7th Grade	44.9	42.0	47.6	46.0
	12.2	7.9	12.9	12.1
<i>Education of Wife—Total</i>				
Entered College	99.9	100.0	100.0	100.0
Entered High School	8.2	15.1	8.5	9.0
Entered 7th-8th Grade	31.1	34.6	27.7	30.1
Under 7th Grade	47.7	40.9	49.0	47.2
	12.9	9.4	14.8	13.7
<i>Base—Number of Cases Attribute Known</i>				
Family Income	2,061	149	432	532
Renters (Known Rental)	1,813	133	358	446
Occupation of Head	2,246	159	458	563
Education of Head	2,217	157	450	554
Education of Wife	2,246	159	459	564

Table 5. Percentage distribution of women by family income, rental, occupation of head, and educational attainment of heads and wives for specified groupings of women in the survey.

It should be emphasized that the above tests for representative-



ness refer only to certain descriptive attributes and afford no guarantee of representativeness in so far as voluntary and involuntary aspects of childlessness are concerned. In this connection we can

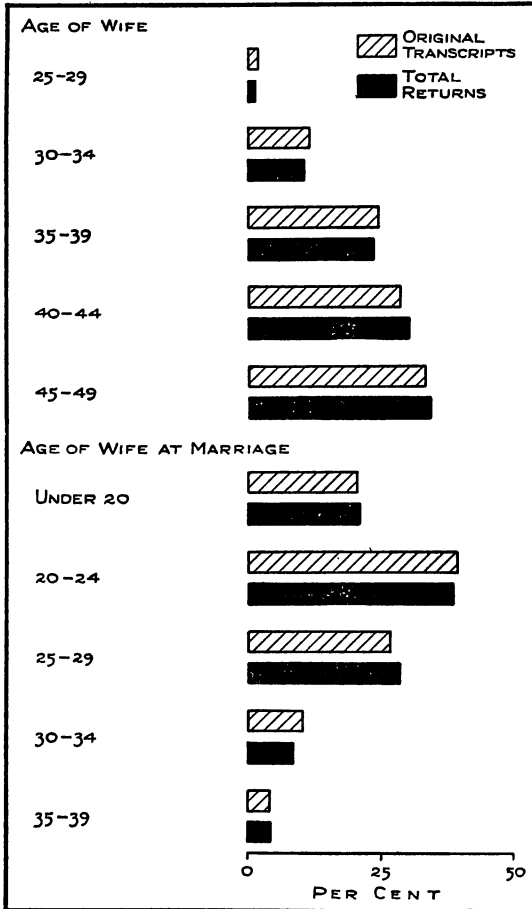


Fig. 1. Percentage distribution by age and age at marriage: wives submitting returns for study of childlessness compared with all included in the original transcripts.

only say that the postulation of representativeness in the latter respect would be based upon poor ground indeed had the sample differed substantially from the original universe in regard to socio-economic status.

Among the 564 women for whom records were secured there were 411 who reported that they had never borne a child. (See Table 6.) These childless women, in turn, were distributed as follows: 291 reported that they had never been pregnant; 90<sup>9</sup> reported a previous pregnancy although they had never borne a child, and 30 gave no report concerning previous

<sup>9</sup> The questionnaires did not require specification of type of pregnancy wastage. This information, however, was given more or less specifically by a substantial number of women, especially among those interviewed by nurses. The 90 women were distributed as follows: 17 had one or more stillbirths but no live births; 5 reported tubal pregnancies; 32 specified one or more spontaneous abortions; 7 specified induced abortions; 9 reported "abortions" but did not specify type; and 20 gave no information aside from the report that they had never borne a child but had been pregnant.

pregnancy.<sup>10</sup> Percentage distributions, based upon reported histories of previous pregnancies, indicate that a little more than three-fourths of the childless women considered here had never conceived, the range by borough extending from 71 per cent in Queens to 82 per cent in Brooklyn.

If the present sample is a true one, it may be estimated that a little over 9 per cent childlessness existed in the four boroughs among all white couples (heads and wives) in which the wives were under 50 years of age and had been married 10 years or more. Analyzed by nativity, the estimates were 11 per cent among native wives and 7 per cent among foreign wives of the above description. These estimates are closely in line with actual findings from family survey data from the Bushwick section of Brooklyn<sup>11</sup>

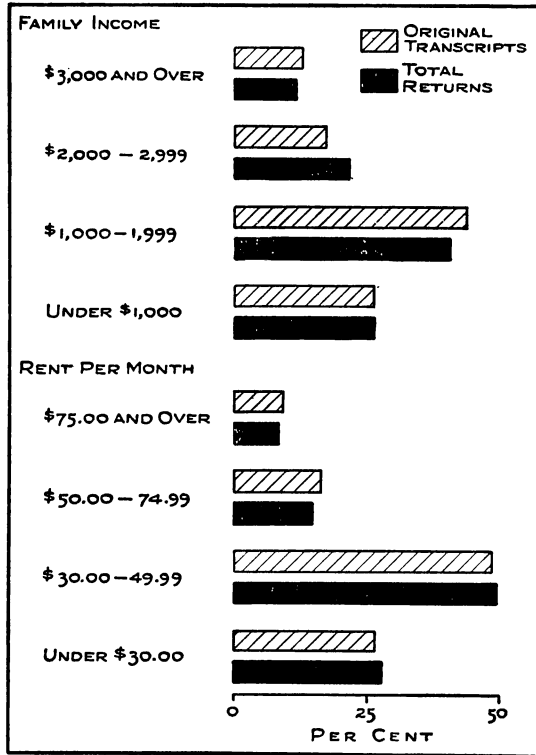


Fig. 2. Percentage distribution by total family income and by monthly rental: wives submitting returns for study of childlessness compared with all included in the original transcripts.

<sup>10</sup> In addition to failure or refusal of the clients to divulge information other than the fact of childlessness, there are included in these 30 a few instances in which the nurses failed to contact the women but learned from other sources (mothers, sisters) that the women in question had never borne a child. Information from such secondary sources was not solicited, or accepted for data other than those concerning previous childbirth.

<sup>11</sup> From the Bushwick survey, conducted in 1933, the rate of childlessness and age at marriage distributions could be analyzed as below for:

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and restricted to couples comparable with regard to maximum age of wife and minimum duration of marriage. In Bushwick, childlessness was observed among 12 per cent of the native wives and among

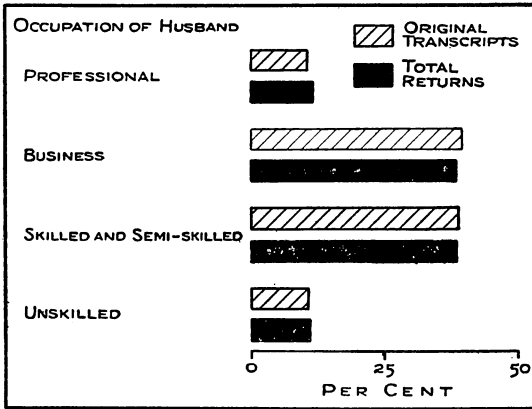


Fig. 3. Percentage distribution by occupational class of the husband: wives submitting returns for study of childlessness compared with all included in the original transcripts.

8 per cent of the foreign wives who were under 50 and had been married 10 years or more. On the other hand, the Bushwick data, as well as other studies,<sup>12</sup> indicate that the above estimates are lower than actual rates derived by the more ordinary procedure of relating childlessness to wives of com-

Group 1. Wives under 50 years of age who had been married 10 years or more (comparable to the New York City data).

Group 2. Wives 40 years of age or older, regardless of duration of marriage (all remarriages and separations occurring before the wife became 45 were excluded).

AGE AT MARRIAGE	NATIVE WHITES				FOREIGN WHITES			
	Per Cent Childless		Age at Marriage Per Cent Distribution		Per Cent Childless		Age at Marriage Per Cent Distribution	
	Group 1	Group 2	Group 1	Group 2	Group 1	Group 2	Group 1	Group 2
TOTAL	12	18	100	100	8	10	99	99
Under 20	7	8	31	22	5	3	34	23
20-24	11	11	46	43	8	8	45	45
25-29	20	21	17	21	11	11	16	20
30-34	30	38	5	8	*	18	4	8
35-39	*	53	1	4	*	*	***	2
40 and Over	**	*	**	2	**	*	**	1
Number in Samples	1,127	1,426	1,127	1,426	445	750	445	749

\* Base too small.

\*\* Ruled out.

\*\*\* Less than 1 per cent.

<sup>12</sup> Notestein has found from analyses of samples from the 1910 Census returns that  
(Continued on page 61)

pleted fertility regardless of duration of marriage. Judging from the Bushwick material, the total rate of childlessness among women under 50 and married 10 years or more is lower than a rate based upon wives 40 years of age and over, only as a result of differences in the age at marriage distributions.

Within specific bridal ages no significant differences were found in rates of childlessness for the two types of populations. The dual restrictions with regard to maximum age of wife and minimum duration of marriage result in a subnormal representation of relatively late ages at marriage. This situation, however, has its advantages for studies bearing on the relative importance of sterility and voluntary childlessness.

Even aside from the fact that marriages after 40 were eliminated, it would appear that the childless couples for this study were drawn from a universe<sup>18</sup> in which the

around 16 per cent childlessness existed among native white urban couples of "completed fertility" (wives 40-49). See Notestein, F. W.: The Differential Rate of Increase Among the Social Classes of the American Population. *Social Forces*, October, 1933, xii, No. 1, p. 21.

<sup>18</sup> This "universe" included 17,971 white wives (of heads) in the four boroughs who reported in the original health survey that they were under 50 years of age and that the household had been established 10 years or more.

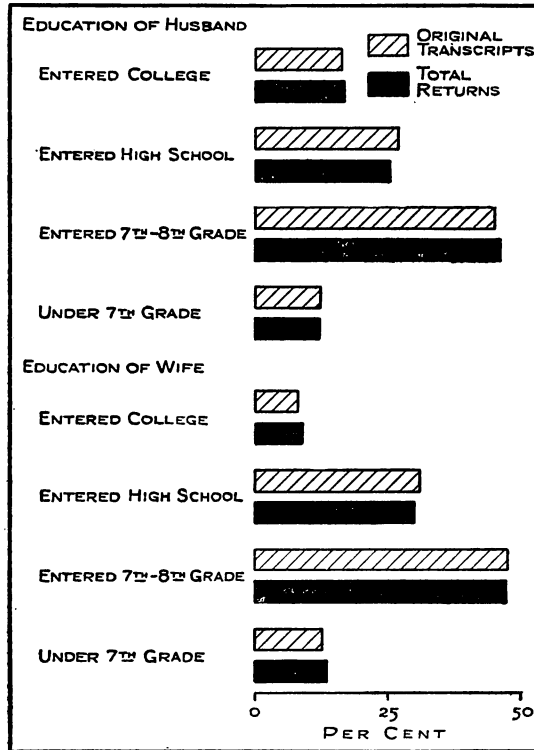


Fig. 4. Percentage distribution by education of the husband and of the wife: wives submitting returns for study of childlessness compared with all included in the original transcripts.

HISTORY OF PREVIOUS BIRTHS AND PREGNANCIES	FOUR BOROUGHES	BROOK-LYN	BRONX	MAN-HATTAN	QUEENS
NUMBER OF WOMEN					
TOTAL	564	176	123	165	100
Has Borne a Child	153	56	31	43	23
Childless	411	120	92	122	77
Never Pregnant	291	88	67	84	52
Has Been Pregnant	90	19	20	30	21
Pregnancy History Unknown	30	13	5	8	4
PER CENT					
TOTAL CHILDLESS	100.0	99.9	99.9	100.1	100.0
Never Pregnant	70.8	73.3	72.8	68.9	67.5
Has Been Pregnant	21.9	15.8	21.7	24.6	27.3
Pregnancy History Unknown	7.3	10.8	5.4	6.6	5.2
PER CENT					
CHILDLESS—PREGNANCY HISTORY KNOWN	100.0	100.0	100.0	100.0	100.0
Never Pregnant	76.4	82.2	77.0	73.7	71.2
Has Been Pregnant	23.6	17.8	23.0	26.3	28.8

Table 6. History of previous births and pregnancies among women submitting returns for the survey, by borough.

wives had a somewhat better than average opportunity to have children in so far as age at marriage is concerned.

#### ANALYSIS RESTRICTED TO NEVER-PREGNANT WOMEN

Attention is now directed to the replies submitted by the never-pregnant women, for these women alone were requested to answer the questions concerning contraception. The data are consistent in their implications that absence of conception among couples married ten years or more is in large part an involuntary situation.<sup>14</sup> In this respect the findings are in agreement with those of Lorimer

<sup>14</sup>In considering the implications of a high proportion of infecundity among the childless couples in this sample, it should be emphasized that we are here concerned with the experience of the *mated couples*, not with potential fecundity of the individual wife or husband.

and Osborn, not with those of Popenoe. As indicated in Table 7 and Figure 5, over three-fourths of the never-pregnant women reported that neither they nor their husbands had ever done anything

Table 7. Contraceptive practice since marriage, attitude toward childless condition, and solicitation of medical advice among women reporting that they were never pregnant.

Classification	Number Women	Per Cent <sup>1</sup>
<i>Contraceptive Practice Since Marriage</i>		
TOTAL	291	100.0
Never Practiced	217	77.8
At Times—Not Always	24	8.6
Regularly and Always	38	13.6
Unknown	12	
<i>Attitude Toward Childlessness</i>		
TOTAL	291	100.0
Disappointed	187	66.8
Not Disappointed	93	33.2
Unknown	11	
<i>Solicitation of Medical Advice</i>		
TOTAL	291	100.0
Has Sought	157	57.3
Has Not Sought	117	42.7
Unknown	17	

<sup>1</sup> Percentages based upon number of women supplying reports for respective classifications.

since marriage to prevent conception; about 9 per cent stated that only temporary or occasional practice of contraception had been employed, and approximately 14 per cent reported regular and continuous practice. Furthermore, two-thirds of the never-pregnant women reported that they were disappointed in their childless condition and 57 per cent declared that they had, in the past, consulted a physician to ascertain why they could not have a child.<sup>15</sup>

<sup>15</sup> The major importance of involuntary factors is likewise implied when all childless women in the sample (not simply the never-pregnant women) are considered. As previously stated, the questionnaire requested only from never-pregnant women replies concerning practice of contraception since marriage. The childless women who had been pregnant, however, submitted these returns and those concerning attitudes and solicitation of medical advice in sufficiently large proportions to warrant suggestive presentation. The results for the total 411 childless women, stated in ranges according to the disposition of "unknowns," suggested that from two-thirds to three-fourths had never practiced contraception, from 60 to 70 per cent were "disappointed" with their condition and from 50 to 60 per cent had consulted a physician to find out why they could not have a child. Even if all the childless women submitting returns, but supplying no report concerning use of contraception, are assumed to have been *regular* practicers, there would be an outside maximum of only 26 per cent of all childless women in the sample who could be regarded as having regularly and constantly practiced contraception since marriage.

An attempted two-fold division of the childless women, based upon detailed analysis of the returns, indicated that from 70 to 80 per cent of the native white childless women and

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At first it may appear that the proportions of never-pregnant women reporting no contraceptive practice is incredibly high. Pearl<sup>16</sup> found that only 47 per cent of 3,420 white maternity cases

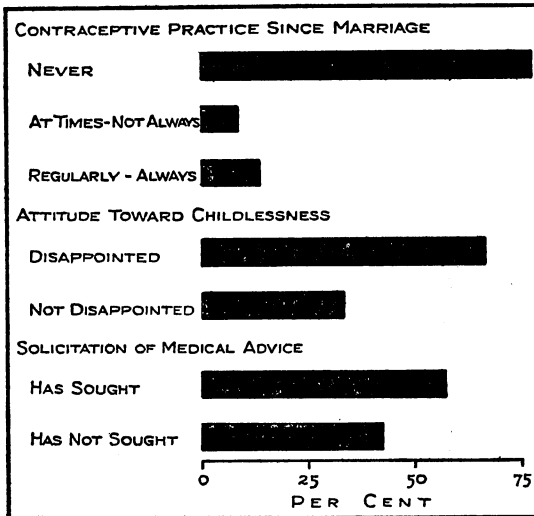


Fig. 5. Distribution of never-pregnant women submitting returns for study of childlessness, according to practice of contraception since marriage, expression of disappointment over childless condition, and by previous solicitation of medical advice.

cited analysis is confined to women free from any form of gynecologic disease, constitutes a cardinal difference between the two sets of data. It is well known that contraceptive practice increases with order of pregnancy. Thus, although only 40 per cent of the

80 to 85 per cent of the foreign white childless women in the sample could be regarded as involuntarily without offspring. For suggestive purposes, these ratios may be applied to the estimated rates of childlessness in the more general population, presented on page 59. Among white couples (heads and wives in the four boroughs) in which the wife was native, under 50 years of age, and had been married 10 years or more, around 8 or 9 per cent were thus estimated to have been involuntarily childless, leaving 2 or 3 per cent voluntarily childless women. Among foreign wives of similar description with regard to age and duration of marriage, it was similarly estimated that 5 or 6 per cent were involuntarily childless and 1 or 2 per cent had deliberately avoided parenthood altogether. These estimates, of course, are necessarily crude and have been presented mainly for the purpose of setting the central findings of this study in a broader perspective.

<sup>16</sup> Pearl, Raymond: Fertility and Contraception in New York and Chicago. *The Journal of the American Medical Association*, April 24, 1937, cviii, pp. 1385-1390.

delivered in hospitals in New York City reported *no* previous contraceptive practice. Nevertheless, the present findings are not inconsistent with those of Pearl. All of the women in Pearl's sample had been pregnant at least once, whereas our present consideration is restricted to women who were never pregnant after ten years or more of married life. This, together with the fact that Pearl's

multiparous women in Pearl's sample reported *no* contraceptive practice since marriage, 61 per cent of the primiparous women in his sample gave such report. It therefore may not appear unreasonable that 78 per cent of the never-pregnant women in the present sample should report themselves as never having practiced contraception. This is especially true when it is considered that the present sample does not exclude couples who have never practiced contraception due to their knowledge that such efforts were unnecessary.

The volunteered comments on the schedules confirm the indication of involuntary childlessness among women who have never conceived. Among the 291 who were never pregnant there were 158 who stated in specific or in general terms the nature of a pertinent operation or affliction, *or* stated that they had been advised *by a physician* that there was "no apparent reason" for failure to conceive. It is not without interest that the above number of women who volunteered such information constituted 54 per cent of the total number of women who had never conceived. If the number includes lay opinions and, therefore, imagined ailments, it also excludes an unknown number declining to comment on real physical disorders accounting for sterility.<sup>17</sup>

Lack of space prevents more than brief mention of the variations in extent of contraceptive practice within the group of never-pregnant women. The small size of the sample precluded dependable results, but in general it appeared from Table 8 that the proportion reporting *no* contraceptive practice was lower among the native whites than among those of foreign birth, lower among women in the younger age groups than among those in the older, and lower among women of most educated groups than among

<sup>17</sup> The following grouping of the 158 women according to reported pathology is presented merely as a suggestion of their collective, not individual, importance: history of tubal infection, 9; uterine operations performed or advised, 26; ovarian pathology, 8; severe abdominal and/or pelvic infections, 5; infantile uterus, 12; uterine displacement, 15; endocrine condition, 5; husband sterile, 10; operations designed to facilitate pregnancy, advised or performed, 24; "being treated," "natural causes," "general debility," "not properly mated," etc., 23; *physician advised* there was "no apparent reason" for failure to have a child, 21.



CLASSIFICATION BY SPECIFIED ATTRIBUTE	CONTRACEPTION SINCE MARRIAGE		DISAPPOINTMENT		SOLICITATION OF MEDICAL ADVICE	
	Base	Per Cent Never Practiced $\pm \sigma$	Base	Per Cent Disappointed $\pm \sigma$	Base	Per Cent Has Sought $\pm \sigma$
<i>Nativity of Wife</i>						
Native	152	74 $\pm$ 4	153	62 $\pm$ 4	148	55 $\pm$ 4
Foreign	127	82 $\pm$ 3	127	72 $\pm$ 4	126	60 $\pm$ 4
<i>Age of Wife</i>						
Under 35	33	67 $\pm$ 8	32	72 $\pm$ 8	29	66 $\pm$ 9
35-39	78	72 $\pm$ 5	78	71 $\pm$ 5	77	64 $\pm$ 5
40-44	86	79 $\pm$ 4	88	65 $\pm$ 5	87	59 $\pm$ 5
45-49	82	87 $\pm$ 4	82	63 $\pm$ 5	81	47 $\pm$ 6
<i>Family Income</i>						
\$3,000 and Over	33	76 $\pm$ 8	34	71 $\pm$ 8	33	64 $\pm$ 8
2,000-2,999	65	71 $\pm$ 6	65	58 $\pm$ 6	65	49 $\pm$ 6
1,000-1,999	101	77 $\pm$ 4	66	65 $\pm$ 5	95	56 $\pm$ 5
Under \$1,000	69	88 $\pm$ 4	68	76 $\pm$ 5	69	65 $\pm$ 6
<i>Occupation of Head</i>						
Professional	37	65 $\pm$ 8	38	68 $\pm$ 8	39	44 $\pm$ 8
Business	98	80 $\pm$ 4	99	63 $\pm$ 5	97	55 $\pm$ 5
Skilled	115	81 $\pm$ 4	114	71 $\pm$ 4	110	65 $\pm$ 5
Unskilled	28	79 $\pm$ 8	28	64 $\pm$ 9	27	59 $\pm$ 9
<i>Education of Head</i>						
College	52	62 $\pm$ 7	53	64 $\pm$ 7	50	50 $\pm$ 7
High School	60	72 $\pm$ 6	60	63 $\pm$ 6	59	54 $\pm$ 6
7th-8th Grades	125	83 $\pm$ 3	126	68 $\pm$ 4	124	60 $\pm$ 4
Under 7th Grade	34	91 $\pm$ 5	33	73 $\pm$ 8	33	70 $\pm$ 8
<i>Education of Wife</i>						
College	26	58 $\pm$ 10	27	63 $\pm$ 9	27	56 $\pm$ 10
High School	92	74 $\pm$ 5	91	63 $\pm$ 5	86	57 $\pm$ 5
7th-8th Grades	122	81 $\pm$ 4	122	69 $\pm$ 4	121	57 $\pm$ 5
Under 7th Grade	39	90 $\pm$ 5	40	73 $\pm$ 7	40	60 $\pm$ 8

Table 8. Proportions of never-pregnant women reporting no contraceptive practice since marriage, disappointment in failure to have a child, and past solicitation of medical advice according to nativity, age, and socio-economic status.

their opposites. The group differences in proportions expressing disappointment and in proportions claiming past solicitation of medical advice were smaller and of less consistent nature. Of central importance, however, was the fact that in all strata the absence of conception after ten years or more of married life appeared to be

largely an involuntary situation. Moreover, a surprisingly high number of women had sought medical advice to ascertain why they had failed to conceive.

Questions may arise concerning the possible importance of late age at marriage among the never-pregnant women reporting no contraceptive practice. By virtue of the original restrictions, of course, all of these women were under 40 at the time of marriage. The actual distribution shows that 13 per cent were under 20, 57 per cent were under 25, and 87 per cent were under 30.<sup>18</sup> For purposes of a control, similar data are available for a group of Bushwick (Brooklyn) white women from an altogether different survey.<sup>19</sup> The 1,572 cases used are comparable with respect to maximum age of wife and minimum duration of marriage but were unselected with respect to fertility or contraceptive practice. Among the latter group 32 per cent were under 20 years of age when they married, 78 per cent were under 25, and 94 per cent were under 30. In general, it would appear that late age at marriage was a factor but was not of primary importance<sup>20</sup> in the childless condition of the never-pregnant women reporting no contraceptive practice or among the total group of never-pregnant women in the present sample.

It should be emphasized to the reader that any study of factors underlying childlessness among women who can be described as permanently childless must perforce be largely concerned with contraceptive practices reaching back into the past. By virtue of the restriction of the present sample to women under 50 who have been married 10 years or more, the latest possible period considered was

<sup>18</sup> Virtually the same distribution was found for the total group of never-pregnant women.

<sup>19</sup> A population survey conducted in 1933 among 5,135 white families in the Bushwick section of Brooklyn. See Kiser, C. V.: Trends in Annual Birth Rates among Married Women in Selected Areas According to Nativity, Age, and Social Class. The Milbank Memorial Fund *Quarterly*, January, 1937, xv, No. 1, pp. 48-74.

<sup>20</sup> This, however, is partly inherent in the previously discussed restriction of the original universe to wives under 50 with a minimum duration of marriage of 10 years.

from about 1927 to the present. For the oldest women in the sample the reported histories of contraception since marriage could be influenced by use or non-use of such practices as early as 1905. The ranges of time considered, therefore, began from 1905 to 1927 and ended with the date of the survey. In view of the recent decline in the birth rate it is possible that there has been some increase in the extent of voluntary childlessness.

#### CONCLUSION

For a really definitive study we need for a random group of childless couples detailed social and medical records, including complete histories of contraceptive practice and any pregnancy wastage,<sup>21</sup> studies of attitudes and, most of all, medical data similar to those now existing only for the selected group of childless couples who consult specialists. Until such data become available, investigations somewhat similar to the present are needed in other areas. Pending further studies the writer's tentative conclusion is that, however prevalent may be the practice of contraception for purposes of postponing and spacing pregnancies, such practices cannot be held responsible for any major share of existing permanent childlessness. One recipient of the questionnaire unwittingly touched upon the central indications of this study when she wrote: "I firmly believe that most childless women are physically unable to have children and to [*sic*] poor to go through treatments. For life without children is a very dreary dissatisfied [*sic*] life, judging by myself and friends."

<sup>21</sup> Abortions and stillbirths.