

A STUDY OF THE FERTILITY OF NATIVE WHITE
WOMEN IN A RURAL AREA OF WESTERN
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OVER twenty years have passed since the federal government secured information relating directly to a characteristic of the population which, now more than ever, is viewed as important by those who are interested in biological and social changes. This characteristic is the fertility of the population and of its various racial, social, and economic component groups. The declining birth rate, which has manifested itself in so pronounced a degree in recent years, and the effect of a selective restriction of immigration upon our racial stock, are unmistakable evidence that changes are taking place. What the nature of these changes is, in what groups and strata of our population they are most pronounced, what they augur for the future composition of the American people, are matters of utmost concern upon which current data of an indirect kind only are now available.

In the federal censuses of 1900 and 1910 information was collected on duration of marriage and the total number of children born to each married woman. These items, and the facts usually obtained relating to her age at census, the countries of birth of herself and her parents, and those of her husband and his parents, the place of residence, and her own and

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husband's occupations, constituted an adequate body of data for drawing rather broad but definite conclusions as to the fertility of various racial, socio-economic, and geographical groups, and the rate of their contributions to the population. A continued series of such cross sections would have yielded valuable indications as to the nature of certain changes in these contributions and, therefore, in the biological and social character of the people. The failure of the federal government to include the two simple items of information referred to above, even for samples of the population, in the censuses of 1920 and 1930, or even to tabulate them for earlier censuses, has forced the student of these important questions to rely upon less definite and direct information, although in a few instances privately aided tabulations have been made of some of the earlier records and later information for relatively small samples has been collected.

The present paper presents some of the results of one attempt to collect the desired data for a completely enumerated population of a single area for 1929-1930. The data now gradually being assembled for other areas will be presented from time to time for a period centering around 1930.

The area under consideration here is a small one, but the data are not without interest both from the points of view of the indications they afford and of the possibilities they suggest for similar inquiries on a larger scale. The area includes five rural townships in Cattaraugus County, in the southwestern section of New York, with a total population of about 5,000. The character of this population has not changed greatly in the past half-century or more. It is composed almost entirely of native white families of the "older native stock." One village of approximately 1,000 people is included, the remainder of the population living on farms or engaging in occupations ordinarily found in a strictly rural

community. It is only thirty to sixty-five miles distant from Buffalo, but it is not greatly affected by urban conditions, and is in no sense suburban. Indeed parts of the area are still rather isolated. As in other rural communities, signs of change are evident in improved roads, in the introduction of telephones, automobiles, and radios, and in a shift from general to specialized (dairy) farming. In short the area is probably fairly typical of many rural districts in this section of the country.

The data were collected in the autumn of 1929 and the winter of 1929-1930 and included, in addition to the items already indicated, the birth date of each child and the marriage date of each woman. Practically every family within the area was included since the same area was used for studies of the incidence and prevalence of ill health, of the epidemiology of certain diseases, of sanitary conditions, and of the extent to which the population received medical and other health services.

For the purposes of this particular study a selection was made of 1,036 records which included all of the native-born women living at the time of the enumeration, who had been married only once and had not been permanently separated from their husbands prior to their forty-fifth birthdays.

FERTILITY AS RECORDED IN 1929-1930

To these 1,036 women there had been born, up to the time they had been visited by the enumerators, 2,959 live children, the average number of children per wife being 2.86. This average, however, includes families just started as well as entirely complete families and does not take into account the fact that a large proportion of the women are still in the childbearing age, and thus is not a true measure of their fertility. In Table 1 the birth rates are given for women of

AGE OF WIFE	NUMBER OF WIVES	NUMBER OF LIVE BIRTHS	BIRTHS PER 100 WIVES
<i>Total</i>	1,036	2,959	286
Under 25	110	114	104
25-29	111	263	237
30-34	105	290	276
35-39	122	347	284
40-44	119	423	355
45-54	206	634	308
55-64	155	516	333
65 and over	108	372	344

Table 1. Cumulative birth rates for native-born married women of specific ages living in rural Cattaraugus County, in 1929-1930.

different ages. It will be seen that for women under 25 years of age the birth rate was 104 per 100, or about one child per woman, and that the rate rises rapidly to 237 per 100 women in the age period 25-29, 276 per 100 in the age period 30-34, 320 at 35-44. For women over 45 the rates are all in excess of 300, or over three children per woman, the average for this group being 3.31. This figure represents more accurately the total fertility of women in our sample area since it tells us how many live children were produced by the average wife who had lived with her husband at least until the end of her childbearing period.

It has been computed by Dublin and Lotka² that in order to prevent a decrease in the population an average of 3.06 children must be born to each woman who marries. The average of 3.31 children born alive per wife whose marriage remained unbroken until the end of the childbearing period is, therefore, not excessive, although it is probably sufficient to maintain the size of a relatively healthy rural population.

²Dublin, Louis I., and Lotka, Alfred J.: On the True Rate of Natural Increase. *Journal of the American Statistical Association*, September, 1929, xx, New Series, No. 150, pp. 305 and 339.

Yet it is interesting to note in Table 2, that over a fourth (28.5 per cent) of the women in our sample 45 years of age and over had borne either no children at all or only one child.

Table 2. Size of families of native-born married women aged 45-64 years living in rural Cattaraugus County in 1929-1930.

Number of Children Born Alive	Number of Wives Reporting Specified Births	Per Cent of Total Wives
<i>Total</i>	361	100.0
0-1	103	28.5
2-3	123	34.1
4-5	75	20.8
6-	60	16.6

This great variation in the fertility of women is due to many causes, physiological and other, of which we as yet know little. It has been clearly shown, however, in several extensive studies, that there is an association between human fertility

and socio-economic condition, and it has been found that the fertility of white women of native stock under rural conditions is higher than in any social or occupational class in an urban environment. Is this greater fertility a concomitant of rural life *per se*? Or is social status, with its occupational, educational, and other implications, also a factor?

DIFFERENTIAL FERTILITY RATES, 1929-1930

One way in which to throw light upon these questions is to ascertain the fertility rates of women in different occupational classes living under the same environment. Although the total number of women in our rural sample is not large, it is possible to divide them into three groups, roughly differentiated from the point of view of socio-economic or occupational status, namely, wives of farmers, laborers, and business men. Of the farm group, four-fifths were wives of farm owners, one-sixth of renters, and an insignificant num-

AGE OF WIFE	BIRTHS PER 100 WIVES			NUMBER OF WIVES			NUMBER OF LIVE BIRTHS		
	Farm	Labor	Business	Farm	Labor	Business	Farm	Labor	Business
<i>Total</i>	323	237	230	598	283	155	1,932	671	356
Under 25	124	96	44	46	55	9	57	53	4
25-34	277	248	185	118	71	27	327	176	50
35-44	362	286	229	137	63	41	496	180	94
45-54	340	287	167	135	47	24	459	135	40
55 and over	366	270	311	162	47	54	593	127	168
Standardized rate ¹	299	246	189						

¹Standardized by applying the age distribution of an urban and rural sample of 99,226 native-born married women drawn from the 1910 census sheets.

Table 3. Cumulative birth rates for native-born married women of specific ages in different occupational classes living in rural Cattaraugus County in 1929-1930.

ber wives of farm laborers. The labor group was composed of wives of men who were not farm laborers but employees in small factories and in various occupations both in the country and in the village. The business group was composed of wives of men who were engaged in various businesses in the village, and in the country stores and other establishments, and in professional and clerical occupations. The fertility rates for women in these three classes are presented in Table 3. The age distribution of the wives was found to differ, that in the labor group being somewhat younger and that in the farm and the business groups being somewhat older. It is necessary, therefore, to standardize the birth rates for age.³ When this is done, a very interesting fact appears. It is that

³Rates have been standardized by applying the age distribution of 99,226 wives in urban and rural sample populations drawn from the 1910 census enumeration sheets. See Sydenstricker, Edgar, and Notestein, Frank W.: Differential Fertility According to Social Class. *Journal of the American Statistical Association*, March, 1930, xxv, New Series, No. 169, pp. 9-32.

even *within* a rural community differences in fertility rates are found which are associated with differences in occupational status. Thus the highest birth rate (299 per 100 wives) was found for the farm group; and the lowest (189) characterized the business group, while the labor group (246) fell between the two. The differences between the rates for the business and the labor groups in this rural area are of the same general nature as that found between business and labor groups in urban communities, and the fertility of wives living on farms is the highest of all. While the size of our sample is small, the differences are consistent with age of wife, and they suggest an observation that is not without significance, namely, that although rural environment *per se* may be a factor in the rate of human fertility, the conditions associated with occupation probably are factors operating independently of general environment. The relative importance of these two factors cannot be determined definitely until more data are accumulated and comparable information as of 1930 is available for urban occupational groups.

The differential fertility rates according to occupational groups persist in each of three age periods even when "exposure to risk" is controlled by excluding late marriages and taking the length of marriage into account, and when stillbirths as well as live births are included. The somewhat detailed tabulation necessary for this analysis is presented in full in Table 4 in order that the method employed may be clearly understood.⁴ The cumulated rates plotted in Figure 1,

⁴The procedure may be summarized briefly as follows: Only women who were married under 25 years of age were included, and within each occupational group as already defined the number of wives who had completed a specific year of marriage was ascertained. The number of live births as well as stillbirths occurring during each year of marriage to these women was then found, and the birth rates computed for specific years of marriage. These birth rates were then cumulated in order to show the total number of births (including of course, both still- and live births) that had occurred during varying dura-

(Continued on page 25)

COMPLETED YEARS MARRIED	FARM			LABOR			BUSINESS			CUMULATIVE RATES ¹		
	Number of Wives	Live and Still Births in Each Year		Number of Wives	Live and Still Births in Each Year		Number of Wives	Live and Still Births in Each Year		Farm	Labor	Business
		Number	Rate per 100 Wives		Number	Rate per 100 Wives		Number	Rate per 100 Wives			
Wives Under 30 Years of Age in 1929-1930												
1	99	36	36.4	77	25	32.5	18	4	22.2	36.4	32.5	22.2
2	92	38	41.3	68	25	36.8	16	6	37.5	77.7	69.3	59.7
3	84	25	29.8	56	18	32.1	15	2	13.3	107.5	101.4	73.0
4	78	32	41.0	47	17	36.2	12	4	33.3	148.5	137.6	106.3
5	65	29	44.6	39	9	23.1	11	2	18.2	193.1	160.7	124.5
6	53	13	24.5	33	10	30.3	9	2	22.2	217.6	191.0	146.7
7	41	17	41.5	26	7	26.9	8	2	25.0	259.1	217.9	171.7
Wives 30 to 44 Years of Age in 1929-1930												
1	161	39	24.2	74	17	23.0	35	8	22.9	24.2	23.0	22.9
2	161	63	39.1	74	28	37.8	35	13	37.1	63.3	60.8	60.0
3	161	66	41.0	74	23	31.1	35	11	31.4	104.3	91.9	91.4
4	161	49	30.4	74	20	27.0	35	12	34.3	134.7	118.9	125.7
5	161	49	30.4	74	22	29.7	35	7	20.0	165.1	148.6	145.7
6	161	45	28.0	74	14	18.9	34	6	17.6	193.1	167.5	163.3
7	160	37	23.1	73	18	24.7	34	4	11.8	216.2	192.2	175.1
8	158	40	25.3	72	13	19.4	34	7	20.6	241.5	211.6	195.7
9	156	36	23.1	70	15	21.4	33	4	12.1	264.6	233.0	207.8
10	153	23	15.0	66	9	13.6	31	4	12.9	279.6	246.6	220.7
11	147	27	18.4	62	10	16.1	29	1	3.4	298.0	262.7	224.1
12	138	18	13.0	58	10	17.2	27	2	7.4	311.0	279.9	231.5
13	127	20	15.7	55	7	12.7	26	3	11.5	326.7	292.6	243.0
14	117	18	15.4	52	3	5.8	24	0	0.0	342.1	298.4	243.0
15	108	10	9.3	45	4	8.9	22	2	9.1	351.4	307.3	252.1
Wives 45 to 64 Years of Age in 1929-1930												
1	156	35	22.4	57	14	24.6	41	11	26.8	22.4	24.6	26.8
2	156	59	37.8	57	21	36.8	41	14	34.1	60.2	61.4	60.9
3	156	51	32.7	57	19	33.3	41	10	24.4	92.9	94.7	85.3
4	156	41	26.3	57	20	35.1	41	9	22.0	119.2	129.8	107.3
5	156	46	29.5	57	13	22.8	41	6	14.6	148.7	152.6	121.9
6	156	35	22.4	57	13	22.8	41	8	19.5	171.1	175.4	141.4
7	156	34	21.8	57	13	22.8	41	5	12.2	192.9	198.2	153.6
8	156	36	23.1	57	14	24.6	41	8	19.5	216.0	222.8	173.1
9	156	27	17.3	57	11	19.3	41	4	9.8	233.3	242.1	182.9
10	156	25	16.0	57	6	10.5	41	5	12.2	249.3	252.6	195.1
11	156	32	20.5	57	7	12.3	41	2	4.9	269.8	264.9	200.0
12	156	18	11.5	57	4	7.0	41	1	2.4	281.3	271.9	202.4
13	156	22	14.1	57	6	10.5	41	2	4.9	295.4	282.4	207.3
14	156	20	12.8	57	4	7.0	41	8	19.5	308.2	289.4	226.8
15	156	21	13.5	57	10	17.5	41	5	12.2	321.7	306.9	239.0
16	156	20	12.8	57	1	1.8	41	2	4.9	334.5	308.7	243.9
17	156	14	9.0	57	3	5.3	41	2	4.9	343.5	314.0	248.8
18	156	14	9.0	57	3	5.3	41	1	2.4	352.5	319.3	251.2
19	156	15	9.6	57	0	0.0	41	1	2.4	362.1	319.3	253.6
20	156	12	7.7	57	4	7.0	41	1	2.4	369.8	326.3	256.0

NOTE: Every wife who had completed one year of married life, even though only one, is included for that specific year, and every wife who completed two years of married life for that year, et cetera, with the result that the number of wives for whom rates were computed changes year by year in the younger age groups.

¹Rates for single years of married life have been added together, thus utilizing the most significant rates available at each period.

Table 4. Birth rates in successive years of married life for native-born women in different occupational classes who had married under twenty-five years of age and were living in rural Cattaraugus County in 1929-1930.

are of especial interest because they indicate the rapidity with which the average "natural family" is built up in different occupational groups in a rural area. For example, after

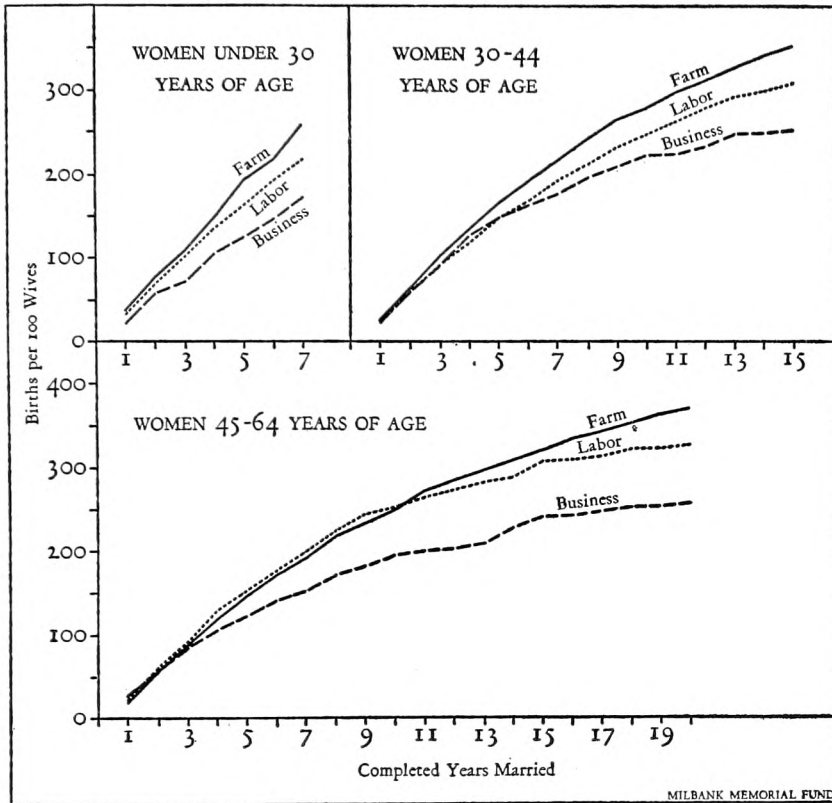


Fig. 1. Cumulated birth rates for successive years of married life in native-born women in different occupational classes in rural Cattaraugus County. Rates are shown for women in three broad age groups as of 1929-1930 who had married before age 25.

seven years of married life 100 women married under 25 and 30-44 years of age in 1929-1930 had borne on an average 216 children if in the farmer group, 192 if in the labor group, and 175 if in the business group. Similar differences according to occupational class are to be found for women under 30 years of age and in the age period 45-64 in 1929-1930. Thus the tions of marriage to women differentiated according to age groups in 1929-1930 within each occupational class. The cumulated rates were found simply by adding the rates for specific years of marriage and are essentially the same, as found by actual tests, as would be obtained by computing rates for women who had completed a given "exposure to risk."

	ALL INTERVALS	LENGTH OF INTERVALS, IN MONTHS						
		0-6	7-11	12-17	18-23	24-35	36-59	60+
Number of wives	326	13	82		46	57	46	36
Per cent	100.0	4.0	21.2	18.1	14.1	17.5	14.1	11.0

Table 5. Interval between marriage and first birth.

differential fecundity rates are not only consistent but persist over a long period of time, and are true for women of widely different ages when length of "exposure" is held constant and marriage takes place before the age of twenty-five years.

FREQUENCY OF BIRTHS TO THE SAME MOTHER

A consideration of frequency of births naturally suggests the length of intervals between marriage and first birth and between successive births. As the date of each birth and still-birth was ascertained as accurately as practicable, it is possible to present certain data on intervals which, because of their infrequency in literature on human fertility, are not without interest, in spite of the small numbers used.

It is by no means assumed that the records of intervals between marriage and the birth of the first child are complete or accurate in all cases. Obviously a reluctance to give exact information in instances where the interval was less than the normal period of gestation is to be expected. Yet the extraordinary willingness on the part of the wives residing in the area to cooperate in giving information freely and fully, as well as the guarantee on the part of the investigator that this information would be used for statistical purposes only, go far to lessen the amount of error that one might expect. The possibility of this inaccuracy relates, of course, to the shortest intervals. The frequency with which the first births occurred at various intervals after marriage in the entire

group of wives who were 40 to 59 years of age at the time of the enumeration and had married before the age of 30 is summarized in Table 5.

No particular element of inaccuracy was evident in the information relating to intervals longer than the normal period of gestation between marriage and the first child or in the intervals between the births of later children. The information obtained is given in summary form in Table 6, frequency distributions rather than average intervals being shown. Two comments on this table suggest themselves. One is that the proportion of long intervals is large. Whatever may be the causes, this bit of evidence does not support the assumption, not infrequently made, that fecundity in a rural population is unrestrained. On the other hand it is by no means any proof of deliberate control of the size of families. It is merely a statement of fact, as ascertained for this population group, and can be interpreted in no other way than to say that there is a considerable variability among native white women of native stock living in a rural area with respect to the length of interval between the children they bear. This is, of course, consistent with the finding that these women vary in fecund-

Table 6. Interval between marriage and first child and between successive births to native-born women married under thirty years of age who were 40-59 years of age and living in rural Cattaraugus County in 1929-1930.

LENGTH OF INTERVAL	PERCENTAGE DISTRIBUTION OF INTERVALS BETWEEN					NUMBER OF BIRTHS AFTER SPECIFIED INTERVALS BETWEEN				
	Marriage and First Birth	First and Second Birth	Second and Third Birth	Third and Fourth Birth	Fourth and Fifth Birth	Marriage and First Birth	First and Second Birth	Second and Third Birth	Third and Fourth Birth	Fourth and Fifth Birth
All intervals	100.0	100.0	100.0	100.0	100.1	313	271	205	145	96
Under 18 months	40.9	22.9	10.2	11.0	6.3	128	62	21	16	6
18-23 "	14.1	19.9	22.0	14.5	14.6	46	54	45	21	14
24-35 "	18.2	23.2	24.4	29.7	30.2	57	63	50	43	29
36-59 "	14.7	19.6	28.3	26.9	29.2	46	53	58	39	28
5-9 years	7.7	11.1	12.2	14.5	17.7	24	30	25	21	17
10 years or longer	3.8	3.3	2.9	3.4	2.1	12	9	6	5	2

ity and fertility. The second comment, which probably has some bearing on the first, is that the longer intervals occur relatively more often between the births of later children than between the first additions to the family.

The further interesting indication is given that the shortest intervals occur in the farm group, the longest intervals in the business group, with the labor group between the two. Table 7 summarizes the statistics on this point by showing the proportion of women in each group who had intervals of three years or longer between marriage and the first birth, between first and second birth, and second and third birth. This indication is significant, perhaps, of the nature of the differential fecundity rates in a rural area, but it does not point definitely to the nature of the underlying factors involved.

FERTILITY OF FARMERS' WIVES IN 1900, 1910, AND 1929-1930

The extent and character of the changes in the fertility of the various racial and other component groups of the American people have long occupied the attention of students of population questions. They are questions not merely of academic interest, however; they are of deep significance to everyone to whom future social and biological trends are matters of intelligent concern. The present study is but a fragment of much needed information. It is suggestive of the kind of results that may be anticipated if similar methods of study are used on a larger scale.

In comparing the fertility rates as found in 1929-1930 with those of 1910 and 1900, a factor of environment can be held constant, in some degree, by considering only native white farmers' wives of native stock who were living on farms in the same county.⁵ That is to say, we are comparing fertility

⁵The samples for 1900 and 1910 were taken from the federal census records. For the method used in drawing the samples, see Sydenstricker, Edgar, and Notestein, Frank W.: *ibid.*

ORDER OF INTERVAL	TOTAL BIRTHS			BIRTHS OCCURRING AFTER INTERVALS OF 3 YEARS OR LONGER					
				Number			Per Cent		
	Farm	Labor	Busi-ness	Farm	Labor	Busi-ness	Farm	Labor	Busi-ness
Marriage and first birth	202	70	41	52	16	14	25.7	22.9	34.1
First and second birth	178	59	34	51	26	15	28.7	44.1	44.1
Second and third birth	138	48	19	57	22	10	41.3	45.8	52.6

Table 7. Frequency of births occurring at intervals of three years or longer to native-born women in different occupational classes living in rural Cattaraugus County 40 to 59 years of age who had married before the age of 30, in 1929-1930.

rates of women of similar stock and occupational status at different periods in a strictly rural environment that has undergone little change. When such a comparison is made, the extremely interesting fact emerges that no significantly downward trend has occurred in the fertility rate of wives of farmers of native stock in this typical rural area of this section of the country. The results are summarized in Table 8. Here it is shown that, after allowing for whatever differences may have existed in the ages of the wives included in the three samples, the number of children found to have been born per 100 women was not less in 1929-1930 than in 1900 or 1910. This is indicated for women under 45 years as well as for women of all ages.⁶ The cumulative rates for women at different ages (Table 9) present the evidence in greater detail. It will be noted that the curves as plotted in Figure 2 are

⁶The influence of age at marriage should be much the same in each sample, since the mean age of marriage was 20.8 in 1900, 21.0 in 1910, and 21.2 in 1929, for farm women who, at each date, had been married 5-14 years. When the number of women is taken into account, these slight differences are not significant.

YEAR	STANDARDIZED RATE ¹ PER 100 WIVES		NUMBER OF WIVES IN SAMPLE	
	All Ages	Under 45 Years	All Ages	Under 45 Years
1929	298	276	598	301
1910	269	234	1,520	623
1900	285	251	1,128	637

¹To the age distribution of an urban and rural sample of 99,226 wives drawn from the 1910 census records.

Table 8. Standardized cumulative birth rates for wives of farmers in Cattaraugus County in the years 1929, 1910, 1900.

essentially similar in that they reach about the same level after 45 years of age.⁷

The slightly higher standardized rate for women under 45 in 1929 than in 1910 or 1900 (Table 8) is contrary to what would have been expected in view of a declining birth rate. Birth registration in New York State was incomplete prior to 1916, but for the period 1916-1927 Downes⁸ has given the birth rates for the rural part of Cattaraugus County with more than usual accuracy since she corrected them for residence of mothers. Although these rates do show a definite decrease, the decrease occurred only in 1925-1927; in the postwar period of 1920-1924 an actual increase appeared.⁹ Now our cumulative birth rates for 1929 as plotted in Figure 2 are consistently higher in the ages under 45, particularly at 25-29. Since any significant variation peculiar to the child-

⁷In the 1900 sample the successive age rates after 45 suggest the possibility of a slight trend. Since the number of cases is small and the rates are not confirmed by the rates for women ten years older in 1910, no definite conclusion as to this point can be drawn.

⁸Downes, Jean: The Accuracy of the Recorded Birth Statistics in Urban and Rural Areas. *Journal of the American Statistical Association*, March, 1929, xxiv, New Series, No. 165, pp. 23, 25.

⁹The series of annual birth rates per 1,000 rural women aged 15-44 beginning in 1916 is as follows: 97.9; 87.2; 94.8; 89.2; 96.7; 100.6; 98.1; 86.7; 86.0; 77.4; 70.3; 69.0.

AGE OF WIFE AT CENSUS	BIRTHS PER 100 WIVES			NUMBER OF WIVES			NUMBER OF BIRTHS		
	1929	1910	1900	1929	1910	1900	1929	1910	1900
Total	324	285	305	598	1,520	1,128	1,932	4,328	3,443
Under 20	57	78	60	7	23	15	4	18	9
20-24	136	117	142	39	147	113	53	172	161
25-29	263	175	209	62	194	115	163	339	240
30-34	293	249	270	56	196	129	164	489	348
35-39	323	319	336	65	181	115	210	577	386
40-44	397	346	327	72	156	150	286	540	491
45-54	340	354	354	135	284	234	459	1,006	828
55-64	354	328	368	90	227	171	319	744	629
65+	381	396	408	72	112	86	274	443	351

Table 9. Cumulative birth rates in 1900, 1910, 1929 for native-born married women of specific ages living on farms in Cattaraugus County.

bearing period will reflect some condition or conditions operating in the decade or more before the time the enumeration was made, it is reasonable to assume that the higher rates for women of childbearing age in 1929-1930 were due chiefly to such a condition; had not such a condition existed, no significant differences in the curves of cumulative rates for 1900, 1910, and 1929-1930 would have appeared. The rise in the postwar birth rate thus seems to be reflected in the apparently higher fertility of the younger women as recorded in 1929-1930. The drop in the birth rate since 1925 in this area may, however, present a different situation in 1935 or 1940; but that is another story for the future.

It is unwise, of course, to draw any sweeping conclusions from a single small population. Nevertheless this study of fertility rates of native white women in a rural area not greatly affected by urban influences up to 1930 is not without interest. It suggests one mode of research in population prob-

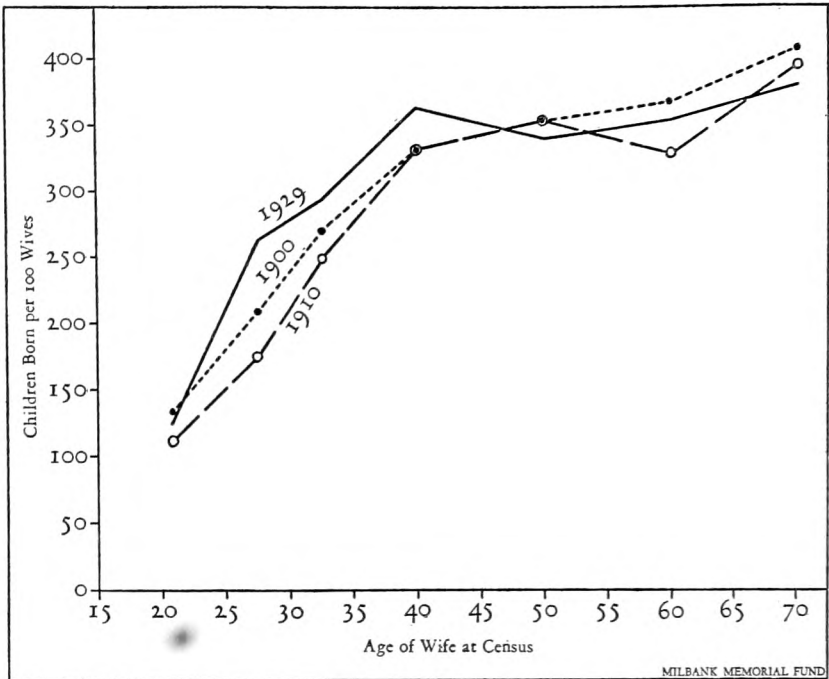


Fig. 2. Cumulative birth rates for native-born married women living on farms in Cattaraugus County, by specific ages as of 1900, 1910, and 1929-1930.

lems which, in this instance, yields suggestive evidence of unchanging fertility of our native stock under a not greatly changing environment. More evidence of this kind would throw light on the important question of whether or not the general decline in the fertility of our so-called "older native stock" is a sign of lessened vitality or is a concomitant of changing environment and all that is implied thereby.¹⁰

¹⁰Notestein, in an earlier paper of this series, compared the size of families of women aged 60-64 with those for women aged 40-44 in 1910, and showed that "the shift from large to small families is less marked among the wives of farm owners than in the urban classes." His data, however, covered the rural parts of seventy-four counties scattered over a large section of the northern part of the United States. See Notestein, Frank W.: *The Decrease in Size of Families from 1890 to 1910*. Milbank Memorial Fund *Quarterly Bulletin*, October, 1931, ix, pp. 181-188.