

SICKNESS, UNEMPLOYMENT, AND DIFFERENTIAL FERTILITY¹

by EDGAR SYDENSTRICKER AND G. ST. J. PERROTT

THAT the birth rate is highest and the family is largest in what we term the "lowest" social class in this country is a fact now well known. The decline in the birth rate has occurred in all classes but this relative difference—the differential birthrate—among social classes has persisted during the depression. That the sickness rate, the prevalence of physical impairments, and the mortality rate are highest in the low-income and so-called "lower" social classes also has been found to be generally true. Recently it has been discovered that wage-earning families which suffered the greatest drop in income during the depression have higher sickness rates than families whose economic status did not change at all or was affected in less degree.

It is easy to yield to the temptation to conclude from these facts that high fertility, ill health, and loss of income during the depression are causally associated, and to proceed to the further deduction that the high birth rate in families which failed most signally or experienced the hardest luck in the severe economic struggle of the past four years constituted a needless handicap to their own welfare and rendered the problem of ill health more acute. Such a process of reasoning would be entirely sound if a basic assumption, necessarily present in the foregoing deduction, were found to be true. This assumption is that high fertility, and loss of income, and ill health actually occurred *in the same families* within a specified social class. What is needed, therefore, is information on

¹A paper from the Division of Research, Milbank Memorial Fund, read at the American Conference on Birth Control and National Recovery, Washington, D. C., January 17th, 1934.

births, income, and ill health during the depression for *each* family in groups sufficient in number to yield statistically dependable results. Only in this way can an answer be given to the highly important question: To what extent is size of family, or, more precisely, a high fertility rate associated with inadequate income and ill health in the depression?

This brief paper is a preliminary report upon an attempt to fulfill these requirements in a study of several thousand families. The report is preliminary because not all of the desired analyses of the data have been completed. It does not presume finality or universality in its conclusions because the information upon which it is based is not as detailed nor as complete in every respect as we would have liked, and because it relates only to a group which may not be thoroughly typical in spite of every effort to make it so. The data were collected with care and are, so far as we know, the only information of the kind at present available. The number of families included constitute a considerable sample of urban wage-earners' families in a most unusual period, 1929-1932.

The data were collected in a study of health among those elements of the population which have borne the brunt of the depression. The Milbank Memorial Fund, in cooperation with the United States Public Health Service, undertook a special house-to-house canvass of severely affected districts in ten localities. No attempt was made to select sections that would be representative of any city as a whole; only the poorer districts, exclusive of slums, were canvassed in order to include families of the wage-earning class. In the blocks or streets that were surveyed, every white family was covered, whether employed or unemployed, and whether recently poor or never self-supporting. Those families whose breadwinners still had their jobs were to serve an important role in the study, viz., a control group whose illness and birth rates

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would be a yardstick which would be essential in interpreting similar rates found for those suffering economic reverses.

For these families the following information was secured, in addition to other data that are not relevant here: (1) a record of occupation, wage-earners, regularity of employment, and amount of income in each year from 1929 through 1932 in sufficient detail to compute family income; (2) a record of births, with dates, to each mother, the exact age and date of marriage of the mother; (3) a record of illness during a period of three months in the late spring of 1933. The method of this study has been described elsewhere² and we shall not refer to it in further detail here. The results, so far as they relate to the subject under discussion, may be summarized as follows:

First, as regards income and income changes in 1929-1932. The average annual income of this group of urban wage-earning families in 1929 was approximately \$1,700, only one-third of them having incomes of less than \$1,200. In 1932, these families averaged only \$900, three-fourths of them had less than \$1,200, about one-fifth were actually on relief, and many others had no means of support.

Second, as regards ill health as indicated by sickness. The highly significant fact was revealed by the surveys in each of the localities that the sickness rate in 1933 was more than 50 per cent higher in families whose incomes had dropped most sharply during the preceding four years than in families which remained in the higher income class. The illness rate was also found to be relatively great in families without employed workers, less in families with part-time workers only, and still less in families with full-time workers. It may be remarked that these illness rates excluded sicknesses begin-

²Perrott, G. St.J. and Collins, S. D.: *Sickness and the Depression*. The Milbank Memorial Fund *Quarterly Bulletin*, October, 1933, xi, No. 4, pp. 281-298.

ning before the period of record, in the late spring of 1933, and thus had little if any connection with any ill health that caused unemployment in earlier years. In fact, ill health as a cause of unemployment was relatively unimportant in comparison with lack of work. The differential illness rates appeared at each age period and for both respiratory and non-respiratory conditions with the exception of communicable diseases. A further inquiry into the diets of samples of these families showed that the food supply of wage-earning families with low incomes due to the depression was considerably under the minimum recommended by most nutritional authorities. In fact, carefully conducted medical examinations of about 1,000 school children from families in areas severely affected by the depression in New York City and Pittsburgh showed there was a direct association between malnutrition and low income and drop in income.

The findings in this study as regards loss of income and sickness, which have been summarized only in bare outline here, point definitely to the conclusion that, insofar as illness is an indication, the health of persons comprising families seriously affected by the depression is being impaired.

In the third place, then, let us consider the birth rates during the depression in these families which have had various economic experiences and which were found to differ so widely with respect to condition of health in 1933.

The records for 8,000 families in eight cities have been tabulated to a point where we may state in general terms the relationship between birth rate, economic and social class, and change in economic status during the four years 1929-1932. It should be kept in mind that these 8,000 families all belong to the social classes ordinarily designated as unskilled laborers, skilled laborers, and the white-collar group. Relatively few had incomes of over \$3,000 even in 1929. This

group, as may be expected, has a birth rate which is higher than that of the general population. Its average annual birth rate per 1,000 married women aged 15 to 44 years for 1929-1932 was 152 as compared with 126 for the United States birth registration area.³ The difference between the birth rate of the surveyed group and that of the urban population is undoubtedly even greater.

The differential rate according to social class was found to persist (Table 1). The birth rate in families of unskilled laborers was 182, in families of skilled laborers 150, and in the white-collar class 134. If income be used as a general index

Table 1. Birth rate and social and employment status, 1929-1932¹.

SOCIAL AND EMPLOYMENT STATUS	BIRTH RATE ² PER 1,000 MARRIED WOMEN AGED 15-44	BIRTHS 1929-1932	NO. YEARS RECORDED 1929-1932 WOMEN AGED 15-44
<i>Unskilled Labor</i>	182	586	3,792
No employed workers	234	154	702
Part-time workers	166	263	1,775
Full-time workers	169	169	1,315
<i>Skilled Labor</i>	150	2,173	14,436
No employed workers	188	318	1,655
Part-time workers	152	1,183	7,374
Full-time workers	134	672	5,407
<i>Salaried Workers</i>	134	559	4,312
No employed workers	167	59	337
Part-time workers	153	173	1,142
Full-time workers	120	327	2,833
TOTAL	152	3,318	22,540

¹For population groups canvassed in Birmingham, Baltimore, Cleveland, Detroit, Greenville, New York City, Pittsburgh, and Syracuse.

²Adjusted for age.

³All of the birth rates here used are the average annual number of births per 1,000 married women in the age period 15-44 years, standardized for age according to the 1930 age distribution of total married women in the United States who were aged 15-44 years.

of efficiency and success as well as social class it was found that the birth rate in families with less than \$1,200 annual income in 1929 was 175 as compared with 115 in families having \$2,500 or more (Table 2). The lower income class thus had a birth rate over one and one-half times that of the higher.

Considering now the birth rate in relation to change in income and employment status, some extremely interesting facts are revealed. They may be summarized as follows:

(1) Classifying families with \$2,000 annual income or more as "comfortable," those from \$1,200 to \$2,000 as "moderate," and those with less than \$1,200 as "poor," we find that the highest birth rate (178) was in families which were poor in 1929 and continued in that condition through 1932, a rate 66 per cent higher than that in families who stayed in relatively comfortable circumstances (Table 3). However, the rather significant indication also appeared that the birth rate in families whose economic status dropped from "moderate" to "poor" during the depression was higher (157) than that in families who continued in "moderate" circumstances (110) throughout the four years. This difference is considerable, the rate for families whose income changed being 39 per cent higher than that for families whose income did not change. Even that group of families whose economic status changed from "comfortable" to "poor" apparently had a considerably

Table 2. Birth rate 1929-1932 and income in 1932¹.

INCOME	BIRTH RATE PER 1,000 MARRIED WOMEN AGED 15-44 ²	BIRTHS 1929-1932	NO. YEARS RECORDED 1929-1932 WOMEN AGED 15-44
Under \$1,200	176	428	2,526
\$1,200-\$1,999	145	572	4,198
\$2,000-\$2,499	124	140	1,484
\$2,500 and over	115	102	1,171

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\$2,500 and over	115	102	1,171

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ECONOMIC STATUS IN		BIRTH RATE ² PER 1,000 MARRIED WOMEN 15-44 YEARS OF AGE	BIRTHS 1929- 1932	NO. YEARS RE- CORDED 1929-1932 WOMEN AGED 15-44
1929	1932			
Poor	Poor	178	406	2,404
Moderate	Poor	157	448	2,994
Moderate	Moderate	113	118	1,152
Comfortable	Poor	133	143	1,287
Comfortable	Moderate	104	75	831
Comfortable	Comfortable	107	37	537

¹For population groups canvassed in Baltimore, Cleveland, New York, and Syracuse.

²Adjusted for age.

Table 3. Birth rate and change in economic status, 1929-1932.¹

higher birth rate (133) than those who in 1932 were found to be in the "comfortable" class (107).

(2) When the employment status of the families in 1932 is considered, it is found that the birth rate in families without employed workers was 197 as compared with 154 in families with part-time workers only, and 134 in families with one or more full-time workers. Thus, the families without any employed workers in 1932 had a birth rate *during the depression* 48 per cent higher than those which had one or more full-time workers in 1932.

This situation appeared for both the wage-earning and the salaried, or white-collar, classes (Table 1).

(3) We were able to make a further tabulation, for presentation in this paper, of families in four cities with less than \$1,200 in 1932 from the point of view of the receipt or non-receipt of relief (Table 4). The birth rate in families which were receiving relief in 1932 was 210 as against 137 in families which were not receiving relief. Thus, the average annual birth rate in families on relief was 53 per cent higher than in those not on relief, even in this low-income class. Doubtless families with more children, especially infants, were singled

RELIEF STATUS IN FAMILY	BIRTH RATE PER 1,000 MARRIED WOMEN 15-44 YEARS OF AGE ²	BIRTHS 1929-1932	NO. YEARS RECORDED 1929-1932 WOMEN AGED 15-44
Relief	210	538	2,481
Non-relief	137	572	4,513

¹For families with less than \$1,200 in 1932 in the population groups canvassed in Baltimore, Cleveland, New York, and Syracuse.

²Adjusted for age.

Table 4. Birth rate 1929-1932 and relief status in 1932.¹

out by welfare agencies for greater attention than smaller families, or families without infants, but the fact remains that the higher birth rate in these poor families is directly related to the necessity for public and private charity.

To summarize: The findings in the surveyed group of families show that the birth rate was highest during the depression in families which were without employment or on part-time work in 1932. Furthermore, if the birth rate is studied in connection with income changes during the depression, it appears that high fertility was associated with inability to succeed in the severe competition for jobs brought about by the depression. Thus, if the economic history of families in a given income group in 1929 is followed through to 1932, we find that those which had dropped from comparative comfort in 1929 to poverty in 1932 were families having a higher birth rate than those which did not suffer a drop in income.

Low social status, unemployment, and low income in 1932 went hand in hand with a high illness rate and increased malnutrition among children. It was in these same groups of families that a high birth rate prevailed. Whatever the broad implications of the findings may be, it is evident that a high birth rate during the depression prevailed in families which could least afford, from any point of view, to assume this added responsibility.