

THE FERTILITY OF POPULATIONS SUPPORTED BY PUBLIC RELIEF

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IN 1934 there was a sudden outburst of news items, special articles, and editorials concerning the fertility of the population supported by public relief. Many of these accounts were accurately reported summaries of scientific studies. Others, and certainly the most alarmist among them, ran under such captions as "Birth Rate of Families on Dole Up 35 Per Cent," and virtually left the reader the impression that procreation becomes the first concern of families when they are accepted for public support. One widely-read magazine drew the inference from its report of a special study that "a family's expectation of having children increases 35 per cent when it goes on the dole," and indicated that the result of the dole would be 108,000 more babies "than would otherwise be expected." Opinion to this effect is so widely held that it is important to examine its accuracy with some care. Just what do we know about the fertility of populations on relief, and how can we proceed to fill the important gaps in our present knowledge?

The source of this opinion lies in the fact that two different types of problems are confused. Both are important, but the solution of one does not yield that to the other. One is concerned with the level or status of fertility in relief families; the other with changes in fertility associated with the fact of dependency. Most of the research has been directed to the former problem, but conclusions soundly drawn and precisely stated to the effect that relief populations are relatively fertile have been interpreted to mean that they became so after their dependency—which is an entirely different matter.

Of the three original studies which have received the most atten-

¹ From the Milbank Memorial Fund.

tion, that by Popenoe and Williams,² has the least bearing on the matter in hand. Their principal conclusion that, "The longer a family is in receipt of charity, the more children it produces," is self-evident. A second conclusion is that, in the group studied, fertility "is at least not diminished by the fact of becoming a recipient of public charity." This is based on the fact that women who bore an average of 2.72 children before first dependency, bore 1.58 children after their first dependency when their natural reproductive capacity was becoming lower because of advancing age. Such uncontrolled evidence is scarcely convincing.

A study by Sydenstricker and Perrott³ based on data for samples of families drawn from the poor sections of eight cities has been widely misinterpreted as indicating that the receipt of relief increased the fertility of dependent families. Actually, the study yielded no information bearing on this point for two reasons: (1) The birth rates presented were exclusively average annual rates for the entire period from 1929 through 1932 and do not permit the analysis of the fertility trends of any group; and (2) these rates were largely dominated by conceptions which occurred before the relief families of 1932 became dependent.

The actual findings, however, are highly interesting and significant. They show among other things that "the average annual birth rate in families on relief [in 1932] was 53 per cent higher [for the period 1929-1932] than in those not on relief, even in this low-income class [*i.e.*, under \$1,200]. Doubtless families with more children, especially infants, were singled 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."

² Popenoe, Paul and Williams, Ellen Morton: Fecundity of Families Dependent on Public Charity. *The American Journal of Sociology*, September, 1934, xl, No. 2, pp. 214-220.

³ Sydenstricker, Edgar and Perrott, G. St. J.: Sickness, Unemployment, and Differential Fertility. *Milbank Memorial Fund Quarterly*, April, 1934, xii, No. 2, pp. 126-133.

This study, therefore, indicates a higher level of fertility during the period 1929-1932 for families dependent on relief in 1932, but it does not indicate, nor does it pretend to indicate, that the fertility of the group increased. Data which have become available since the publication of the original article, show that the average birth rate of those on relief in 1932 was the same for the two-year period 1931-1932 as for 1929-1930, while that for the non-relief group with incomes below \$1,200 dropped about 12 per cent.⁴ Both the decline in the rates of the low-income non-relief group, and its absence in the dependent group may well have been due to the greater willingness on the part of the authorities to accept families with young babies. This is a potential selective factor which must not be overlooked in any study of the fertility of the dependent.

The study which Stouffer conducted in Milwaukee on the "Fertility of Families on Relief,"⁵ can be more plausibly interpreted as indicating that fertility rises during dependency; it at least deals with the period of dependency. However, it presents no direct evidence of such an increase, and the author warns his readers that, "A danger lies in the temptation to read too much into such data."

The study is actually one of differences between the confinement rates of persons on relief and of those not on relief but in the same broad occupational and religious groups. It relates to the period between October 1, 1930, and December 31, 1933. The influence of pregnancies which might have contributed to the eligibility of families for relief was eliminated by including only those confinements which took place at least nine months after the family went on relief, or within a comparable period for con-

⁴ Data from correspondence with Perrott yield the following rates:
Average annual birth rates (adjusted for age) per 1,000 married women 15-44 years of age.

1932 INCOMES UNDER \$1,200	1929-1930	1931-1932
Relief	191	191
Non-relief	129	113

⁵ Stouffer, Samuel A.: Fertility of Families on Relief. *Journal of the American Statistical Association*, September, 1934, xxix, No. 187, pp. 295-300.

control families. The study, therefore, affords an excellent comparison of the fertility of relief families during dependency with that of non-relief families in roughly comparable groups. The records indicate that the relief groups of each class were the more fertile. For the entire sample, the confinement rate for families on public relief exceeded that for the control group by 43 per cent.

Such rates for the relief groups would have occurred if fertility increased after dependency, but they also might have occurred if fertility had simply remained high during dependency. The study yields no evidence as to what actually happened. Other considerations, however, strongly favor the suggestion that the fertility of relief families was greater than that of the control families before as well as during dependency. As has already appeared, Sydenstricker and Perrott's data indicate that the 1929-1930 birth rates were substantially higher for the 1932 relief population than for the non-relief population with incomes under \$1,200. Any selection of large families with small children for relief would tend in that direction. Even apart from such a selection, the difference found is in the direction to be expected. Numerous studies have shown that in this country low economic status is associated with high fertility, and by definition relief families constitute the low-income groups of each class.

No study of changes in fertility associated with dependency can be based on a comparison of the fertility levels of relief and non-relief families. However carefully a control is chosen, the groups will differ by the selective factor of dependency, and the differences observed will be subject to the interpretation that they represent differences in levels rather than a change in fertility following dependency. The only direct approach to the problem of change in fertility associated with dependency lies in a comparison of the experience of relief families during dependency with their experience when self-supporting.

Measurement of the changes in fertility brought about by de-

dependency is not a simple matter, even when it is based on trends observed in relief families. The presence of new-born babies or the wife's pregnancy may be factors in determining the time at which relief is first obtained. The former would tend to place the beginning of relief after a period of high fertility, and the latter to place it before such a period. Neither factor has any bearing on the effect of dependency on fertility. In order to avoid a possible bias from either of these sources, it would be wise to omit the experience for twelve months immediately before and nine months immediately following the time at which relief is first given.

Other serious biases will be encountered in any study of changes in the fertility of relief families accompanying dependency. Virtually all of the material available relates to cases in which dependency follows self-support. This means that for any given family, dependency occurs later in the marriage when fertility tends to be lower. This sequence is the more serious as the selective process of being accepted for relief makes it wise to omit the experience for nearly two years centering around the date of first dependency, thereby separating the two parts of each family's exposure still further. It is essential, therefore, that comparisons be limited to the experience during similar periods of married life. In view of the fact that we have a declining birth rate, it is further necessary to limit the comparison to experience which occurred at about the same time. This would result in comparing birth rates for pre-dependency and dependency exposures during those parts of the first five years of married life which occurred, for example, in the years 1925 to 1929, or 1930 to 1934. It would be highly desirable in such a study to secure data from families which had become self-supporting after a period of dependency, thereby reversing the inherent biases. Further confidence would be placed in the results if data for a control group of non-dependent families could be analyzed in precisely the same manner. The method is expensive but it, or another which accomplishes the same thing, is necessary if changes

in fertility accompanying dependency are to be determined by studying the experience of relief families. So far as the writer knows, no such study has been published.⁶

An indirect approach to the problem may be made by examining the official vital statistics for the period. If we had any certain knowledge of the population of minor statistical units, and if relief data were classified according to these units, the problem would be quite simple. As it is, however, all birth rates of small units for the last three years must be considered provisional, and the approach to the problem must be indirect.

Last June, the editors of the *Statistical Bulletin* of the Metropolitan Life Insurance Company called attention to the fact that the birth rate rose in 1934 for the first time in ten years.⁷ They pointed out that this rise followed an increase during 1933 of the marriage rate which had also been falling for some time, and suggested that both of these reversals were the direct result of an upward turn in the economic tide. In the August issue, they presented "an alternative point of view."⁸ According to this, "The increase in the birth rate that was recorded in 1934 . . . may not be related at all to any increase in income of the self-supporting portion of the people, but rather, on the contrary, may be attrib-

⁶ Part of this suggested procedure has been used by Arthur J. Audy in "A Comparative Analysis of the Birth Rate of 965 Families Before and After Dependency," a thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts, Loyola University, 1935 (unpublished). The writer wishes to express his appreciation of Mr. Audy's generosity in lending his manuscript and permitting the use of material from it.

Audy's study undertakes a comparison of the fertility of relief families before and after first dependency. The most interesting part of the data relate to 662 families which were receiving relief in December, 1934, from the main office of the Cook County, Illinois, Bureau of Public Welfare. Limiting the comparison to similar periods of married life, Audy finds that in most of the groups fertility was greater before than during dependency. In their present form the data are not wholly convincing. Most of the dependency experience is quite recent while much of the pre-dependency period occurred a good while ago, some even before 1910. When the comparison is limited to the most recent experience, the rates are higher during dependency than before for every marriage period but one. It is possible that the results might have been different if the experience immediately preceding and immediately following first dependency had been discarded.

⁷ Better Times and the Birth Rate. *Statistical Bulletin* of the Metropolitan Life Insurance Company, June, 1935, 16, No. 6, pp. 1-2.

⁸ Families on Relief and the Birth Rate. *Statistical Bulletin* of the Metropolitan Life Insurance Company, August, 1935, 16, No. 8, pp. 1-3.

utable to increased dependency on relief." Sydenstricker and Perrott's and Stouffer's papers are summarized and they comment: "If the situation thus observed in small groups is paralleled in the population at large, we should find our greatest increase in birth rates to have occurred in States with the highest proportion of families on relief." This follows only on the assumption that these special studies showed that relief families increased their fertility on becoming dependent, and this assumption, as we have seen, is not valid.

The article goes on to point out that of the thirty states which paid less to the federal government than they received, twenty-eight showed an increase in the birth rate. The eighteen states which paid more than they received included four of the six states in which the birth rate declined, and ten of the thirteen states in which the birth rate increased less than three per cent. The editors indicate that they consider the evidence suggestive rather than conclusive and await further indications of the true cause of the birth rate's reversal.

Miss Ross has pointed out in a recent article⁹ that the exceptions are important. Of the six states which showed a decline in the birth rate, two, New Mexico and Arkansas, were among the states with the largest percentage of the population on public relief at the close of 1934. These two States tied with New Jersey for the largest decline in the birth rate. The remaining states in which the birth rate declined, or remained stationary, are clustered along the eastern seaboard and are, for the most part, highly industrialized areas with large foreign-born populations. States are very heterogeneous units, and so many different factors may influence the course of their crude birth rates, that conclusions based upon their trends are likely to be misleading.

New York State, exclusive of New York City, was not one of

⁹ Ross, Mary: Other People's Babies. *Survey Graphic*, December, 1935, xxiv, No. 12, pp. 591-593, 632.

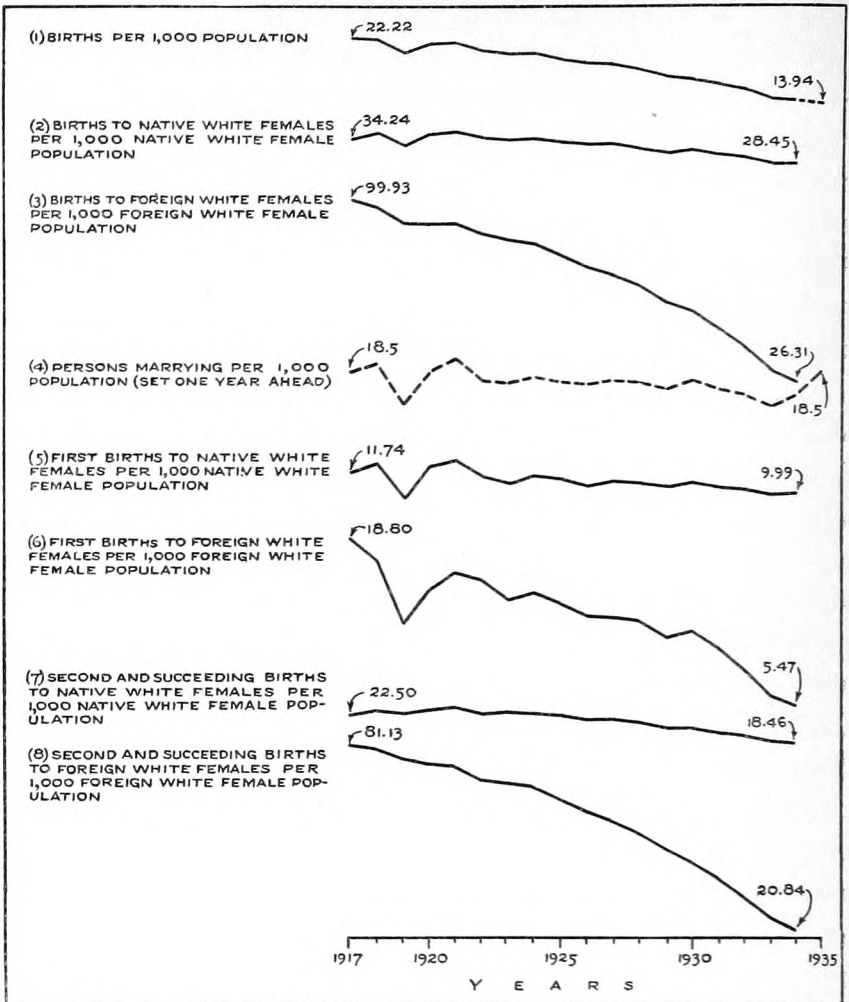


Fig. 1. The trends of birth and marriage rates in New York State exclusive of New York City. (Traced from semi-logarithmic charts without any relation to their absolute heights. The rates are presented in Table 1. Percentage changes in the rates for 1932 to 1933 and 1933 to 1934 are shown in Table 2.)

the regions in which the crude birth rate increased in 1934, but its experience lends support to the view that the general reversal which did occur is not to be attributed to relief families. In this region the increased marriage rate of 1933 seems to have been the important factor. This may be seen in Figure 1. The rates, which are shown in Table 1, have been traced from semi-logarithmic

YEAR	BIRTHS PER 1,000 POPULATION	BIRTHS TO NATIVE WHITE FEMALES PER 1,000 NATIVE WHITE FEMALE POPULATION			BIRTHS TO FOREIGN WHITE FEMALES PER 1,000 FOREIGN WHITE FEMALE POPULATION			PERSONS MARRYING PER 1,000 POPULATION
		Total Births	First Births	Second and Succeeding Births	Total Births	First Births	Second and Succeeding Births	
1916								18.5
1917	22.22	34.24	11.74	22.50	99.93	18.80	81.13	19.4
1918	22.09	35.13	12.17	22.96	93.97	15.75	78.22	14.6
1919	20.16	32.47	9.73	22.74	83.87	9.94	73.93	18.3
1920	21.32	35.27	12.13	23.13	83.08	12.81	70.27	20.1
1921	21.59	35.91	12.50	23.41	83.03	14.43	68.60	17.4
1922	20.31	34.08	11.22	22.87	77.08	13.70	63.38	17.1
1923	19.94	33.80	10.86	22.94	73.57	11.98	61.59	17.8
1924	19.89	34.00	11.28	22.72	71.49	12.41	59.08	17.1
1925	19.18	33.37	11.05	22.33	65.67	11.66	54.01	16.9
1926	18.30	32.29	10.50	21.79	60.09	10.61	49.48	17.3
1927	18.22	32.69	10.83	21.86	56.82	10.46	46.36	17.0
1928	17.51	31.79	10.67	21.12	52.36	10.25	42.11	16.4
1929	16.65	30.84	10.44	20.40	46.61	9.10	37.52	17.5
1930	16.51	31.08	10.79	20.29	43.49	9.41	34.08	16.4
1931	15.73	30.11	10.37	19.75	38.72	8.42	30.30	15.8
1932	15.11	29.54	10.14	19.40	33.94	7.17	26.76	14.5
1933	14.14	28.15	9.59	18.56	28.73	5.90	22.82	15.8
1934	14.06	28.45	9.99	18.46	26.31	5.47	20.84	18.5
1935	13.94							

¹ The population estimates on which the rates for the general population are based are those published by the State Department of Health. Estimates of the native- and foreign-born white females were obtained by applying the percentage of the population in those groups, estimated on the assumption of an arithmetic increase, to the total population estimated by the State Department of Health.

Table 1. Birth and marriage rates for New York State exclusive of New York City.¹

mic charts without any relation to their absolute heights, merely to bring out the differences in their trends. Equal changes on the chart represent equal percentage changes in the rates.¹⁰ The percentage changes for the last two years are also given in Table 2.

The crude birth rate for all classes did not rise in this region during 1934, but the decline which has continued unbroken since 1921 did virtually stop. This was due to a rise of about one per cent in the birth rate of the native population. Meantime, the rate for the foreign born continued its decline, although somewhat more slowly. It must be remembered that this decline, which has

¹⁰ The rates for the native population are births to native-white mothers per estimated 1,000 native-white females and those for the foreign population are births to foreign-white mothers per estimated 1,000 foreign-white females. The 1935 birth rate for all classes was estimated on the basis of the experience through September.

been exceedingly sharp, reflects in considerable part the fact that each year finds a smaller proportion of the foreign-born women in the most fertile years of their child-bearing period. It is clear, however, that it was the native and not the foreign-born population in which fertility increased.

The source of the 1934 increase in the fertility of the native population can be seen by separating first births from second and succeeding births. Figure 1 gives the ratios of first born and of later children to the corresponding female populations for the native- and foreign-born whites. The marriage

Table 2. Percentage changes in birth and marriage rates for New York State exclusive of New York City. (Rates shown in Table 1.)

	Percentage Change in Rates	
	1932 to 1933	1933 to 1934
Marriage rate (1931 to 1932, and 1932 to 1933)	- 8.2	+9.0
Birth rates		
Total births		
All classes	- 6.4	- .6
Native white	- 4.7	+1.1
Foreign white	-15.4	-8.4
First Births		
Native white	- 5.4	+4.2
Foreign white	-17.7	-7.3
Second and succeeding births		
Native white	- 4.3	- .5
Foreign white	-14.7	-8.7

rates are also shown, set one year forward, so that the rate for 1933 appears directly over the birth rate for 1934. It is immediately apparent that the rise in the native birth rate came exclusively from the 4.3 per cent increase in the first births and that this corresponds with a sharp increase of 9 per cent in the marriage rate for 1933. For the foreign-born population, the decline of the rate for the first born was somewhat smaller than that of the rates for second and succeeding children. In both groups the birth rates of the second and succeeding children declined less rapidly, but among the foreign born this decline was still sharp.

It was the native population and not the foreign-born population in which fertility increased, and within the native population it was the first and not the later births that increased. It is difficult

to reconcile these facts with the interpretation that the check in the decline of the birth rate was due to the increased number of persons supported by public relief. New first-born children can scarcely be thought of as more characteristic of relief than of non-relief families.

The New York City experience further supports the suggestion that the reversal in the birth rate did not come primarily from relief groups. Births classified by order are not available, but it is possible to secure the number of births to residents of each of the constituent health areas in the City. A rough classification of the economic status of 305¹¹ of these areas is also available in the distribution of rents paid by resident families as reported in the 1930 Census. Rents have changed radically since 1930 but the general character of the districts has changed so little that they will serve for a rough separation of the poorest from the more well-to-do sections of the City. On the basis of these data, the 305 health areas have been separated into three groups. In the first, the median rentals were under \$45.00; in the second, from \$45.00 to \$59.00; and in the third, \$60.00 or more. The number of births to white residents was obtained for each of the groups for the years 1930 through 1934 and estimated for 1935 on the basis of experience through September.¹² These data have been plotted in Figure 2 on semi-logarithmic scale with the initial points for 1930 superimposed. It is immediately apparent that there was a sharp drop in the number of births in each group from 1930 through 1933. In the poorest districts the decline continued unchecked through 1934 and at a slower rate through 1935. In the intermediate districts, the decline continued through 1934 and 1935 but much more slowly. It was in the high-rent districts that the number of births increased during 1934, and there the reversal was sharp and continued through 1935.

¹¹ The remaining 6 health areas are, for the most part, parks and cemeteries.

¹² Negro births have been omitted to eliminate the disturbing influence of high rents charged to Negro groups even for slum dwellings.

Much can be said about the lack of statistical precision of such results. At best, health areas are heterogeneous units. Those with high median rentals doubtless contained many slum homes, and

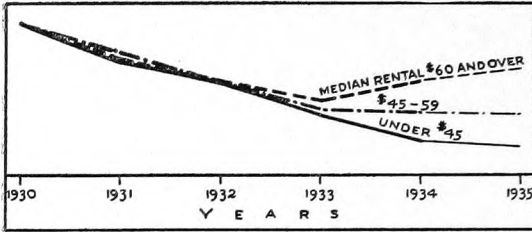


Fig. 2. Trends from 1930 to 1935 in the number of births to white residents of New York City Health Areas grouped by median rentals in 1930. (Data for 1935 are estimated on the basis of monthly returns through September. The scale is semi-logarithmic, and the initial points are superimposed. There are 133 areas with median rentals below \$45, 106 with medians from \$45 to \$59, and 66 with medians of \$60 or more. In 1930 the number of births in each group was 52,119; 39,311; and 22,550, respectively.)

those with the lowest medians, some families in comfortable circumstances. No attempt has been made to take into account the changes which have occurred since 1930 either in the size or the age distribution of the population. The data represent simply the number of births. In spite of all this they

are convincing as far as New York City is concerned. The medians do serve to differentiate roughly the poorest from the well-to-do districts and, while population shifts have doubtless occurred, the results would be affected only if there had been a considerable movement from the cheapest to the more expensive districts. The conclusion seems inescapable that in New York City it was the well-to-do and those in comfortable circumstances, rather than the poor, who increased their fertility in 1934. This is quite the opposite of the result one would expect if dependency increased fertility.

In summary, it appears that those who have been viewing with alarm the increased fertility brought on by dependency have probably been exercising themselves over something that did not happen. The direct studies indicate that relief families were more fertile than non-relief families before dependency as well as during it. In upstate New York the increase in first births accounts entirely for the 1934 increase in the birth rates of the native white

population. This is scarcely compatible with a sharp increase in the fertility of dependents. In New York City it was in the well-to-do and not in the poor districts that the number of births increased in 1934 and 1935. Pending further information, such evidence throws a heavy burden of proof on those who assert that dependency increases fertility.

This suggestion, that dependency does not increase fertility, is supported by *a priori* considerations. It is true that fertility is inversely associated with economic status. This does not mean that the poor have many children and the comfortable and well-to-do few children simply because of their respective incomes. The income status affects and is doubtless affected by an entire complex of living standards, attitudes, and customs which are the important factors in determining fertility. A sudden loss of income, even if sustained for several years, is not likely to change established attitudes and standards of one income group to those characteristic of a poorer and more fertile group. Whatever the standard of the group, loss of income means that for that group new babies are a heavier burden than before. The lines of interest set up would therefore lead one to expect a reduction in the fertility of any group in which voluntary control plays a significant part. When the evidence is all in, it may well be found that the fertility of all classes declined during the most acute phases of the depression, but that the decline was sharpest in those self-supporting groups to which both the knowledge and the means of controlling fertility are the most available.