

VITAL STATISTICS

Birth Rate Down

► THE BIRTH RATE in the United States has been going down for the last four years, but the number of babies being born will likely go up.

This seeming contradiction occurs because the number of women in their 20's, the highest child-bearing decade, will increase by more than a third between 1960 and 1970 as post-World War II babies—now teen-agers—marry and have children of their own. Even if each of these women has fewer children than her older sisters, the total number of babies born in the upcoming years will likely be the largest in this country's history.

The birth rate figures and expected trends come from the Population Reference Bureau, Inc., which keeps a finger on the population pulse in the U. S. and the world and is alarmed at its rising rate. Robert C. Cook, president of the Bureau, said that he hopes the current decline may prove more than a brief respite.

"All too soon," he warned, "we may be turning the streets into playpens—a solution useful only until the next generation of babies learns to drive."

He suggests that one of the reasons for the recent drop in U.S. birth rate may be that the large family is losing some of its charm for the younger married woman. When she hears the "patter of so many muddy little feet across the living room-dining area of her older sister's apartment, she may well make a mental note that this is not for her."

Although the birth rate fell each year from 1957 to 1961, in two years the number of babies born increased. In 1961, 4,268,000 were born, 10,000 more than in 1960. The 1962 total through September, however, is well below that for the same period in 1961.

In the U.S. in 1950 there were 151 million persons. The 1960 census counted 179 million and the 190 million mark will be reached by the close of 1963. The high birth rate after World War II created a growth rate high enough to increase the population by half in each generation. This very high rate of increase, even for a country as prosperous as the U. S., creates social and political problems, in education, delinquency, individual freedoms and conservation, among other factors.

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Some of these couples had decided they wanted fewer children or had discovered health problems which would keep them from having as many as they wanted.

Slightly more numerous, however, were the couples who added one or two children to the number wanted earlier or who realized that they probably would be unable to prevent some unwanted pregnancies. These changes can be taken into account when the birth expectations of young wives are used in population forecasts. Successively smaller adjustments are needed for wives in the late 20s and 30s.

The 1955 and 1960 studies represent the first attempts made in any country to obtain information from a representative sample of young married couples regarding their plans for future childbearing and how closely they are likely to be followed. Having this information will permit more reliable forecasts of future populations, because it is the ups and downs of the birth rate that cause most of the fluctuations in the national growth rate.

In both studies an effort was made to question each wife in the sample regarding the number of children she had borne, the number she expected to have in the future, whether she or her husband had any physiological problems that would make further childbearing unlikely or impossible, whether efforts had been (or would be) made to regulate the spacing and number of pregnancies, how successful past efforts had been, and many other matters relating to family size.

Almost all the wives in each sample supplied useful information. Only about one in ten could not be contacted or refused to cooperate.

The final rate of 330 births per 100 couples indicated by the expectations of the wives aged 25 to 29 in 1960 represents a substantial rise from the lowest rate on record. That was 245, and was set by the wives who were at the most fertile age during the depression years of the 1930s, and who reached the end of the childbearing period during the 1950s. The subsequent rise has regained only a small part of the decline that had gone on for many decades previously. In the early years of the nation's history there were more than 800 births per 100 wives living to middle age.

Whether the shift to somewhat smaller families that has started with the wives 20 to 24 in 1960 will continue for many years, and how far the decline will go if it continues, remain to be seen. Up-to-date information on what is happening during 1962 to 1966 will be supplied by annual surveys to be conducted by the Population Studies Center of the University of Michigan.

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ZOOLOGY

Beavers in New England 12,000 Years Ago

► BEAVERS were in southeastern New England 12,000 years ago. Clifford A. Kaye, U.S. Geological Survey, Boston, reports in *Science*, 138:906, 1962, that wood cut by beavers was found at the bottom of peat deposits.

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Smaller Families Foreseen

► A DOWNTURN in the average size of completed family apparently has begun in the United States, Dr. P. K. Whelpton, director of the Scripps Foundation for Research in Population Problems, Miami University, Oxford, Ohio, has determined from a survey.

Wives aged 20 to 24 in 1960 expected to have somewhat fewer children when their families are completed than did wives at the same ages in 1955.

The anticipated decline is from a final rate of about 330 births per 100 wives who were 20 to 24 years old in 1955 to a rate of about 315 for the wives of these ages in 1960. This finding is based on studies of representative nationwide samples of wives between the ages of 18 and 44, conducted by the Scripps Foundation and the Survey Research Center, University of Michigan, in 1955 and 1960.

This decrease of five per cent in size of completed family would bring about a much larger reduction in the rate of population growth. With mortality, marriage and divorce as they have been in the last few years, 225 births per 100 wives living to middle age are needed to keep the population from decreasing.

If the final rate is 330 the excess over replacement is 105, but if it declines to 315 the excess is cut to 90, a drop of nearly 15 per cent. With the larger families the long-run rate of population growth would be about 17 per cent a decade, but with the smaller families it would be about 14.5 per cent. These rates include the additions that

are likely from immigration.

Partially balancing the depressing effect of smaller families on the rate of population growth during the 1960s and 1970s will be a rapid increase in the number of women who will be reaching the child-bearing ages during the later 1960s and early 1970s, a result of the postwar "baby boom." While it is unlikely that the growth rate from 1960 to 1970 will be as high as the 18.4 per cent increase from 1950 to 1960, a rate of at least 15 now appears probable.

That young wives as a group can give accurate forecasts of the births they will have in the next few years is another important finding of the two studies.

In the 1955 study wives aged 18 to 39 were asked how many births they expected to have in the next five years. In the 1960 study wives aged 23 to 44 who had married in 1955 or earlier reported the number of children they had borne during the preceding five years. The 1955 expectations were 69 to 71 births per 100 couples. The 1960 reports showed that the actual rate was 72. While some couples had more births than they expected and others had fewer, the net agreement was remarkably close.

A third useful finding is that as young wives grow older they expect to have slightly larger families. Wives aged 20 to 24 in 1955 thought there would be 320 births per 100 couples by the time the families were completed, but in 1960 the corresponding wives—25 to 29 years old and married five years longer—expected a rate of 340.