

Fertility Rates.—The sex and age distribution of the population of a country is one of the most important factors influencing its birth, death and marriage rates. In particular, more than 95 p.c. of children are born to women between the ages of 15 and 50. Consequently, differences in the proportion of men to women in these age groups, and in their relative importance in the population as a whole, will cause the birth rate to be different as between countries or regions, even though the fertility of the women of each age may be the same. Measures of fertility which are independent of the sex and age composition of the population have therefore been devised. The most common of these are age-specific fertility rates and reproduction rates.

Table 15 shows the fertility of women in the age groups between 15 and 50 years in Canada and the provinces. The three-year averages 1930-32 and 1940-42 have been calculated on the basis of census figures, while for the single years estimated population figures have been used.

The fertility rates and gross reproduction rates given in Table 15 make it possible to compare fertility in the several provinces after the influence of differences in the sex and age distribution of the population has been eliminated. The figures of 'total fertility' show the number of children that would be born, on an average, to 1,000 women living through the child-bearing ages, that is, from 15 to 50 years, assuming that the fertility at each age were to remain constant and that none of the women died during the 35 years. They are obtained by adding together the fertility rates of the seven age groups and multiplying the sum by 5 (since each age group represents 5 years of child-bearing life).

The gross reproduction rates are obtained by reducing the figures of total fertility in the same proportion as the ratio of female births to total births, and then dividing by 1,000, e.g., the ratio of female to total births in Canada in 1940-42 was 1,000 to 2,059. The gross reproduction rate for 1940-42 is obtained by multiplying total fertility 2,857 by the fraction $1/2,059$. The gross reproduction rate shows the extent to which, on the basis of current fertility and without allowing for any loss as a result of death, the present child-bearing generation of women is reproducing itself for the future. A reproduction rate greater than 1 indicates that the child-bearing generation of women is increasing, a reproduction rate of 1 shows that it is being exactly maintained, while a reproduction rate of less than 1 shows that it is in process of decline.

For purposes of comparison with the Canadian figures, the gross reproduction rate of England and Wales was 0.937 in 1931, and that of the United States 0.992 in 1934-36. In 1936 the gross reproduction rate of France was 1.004, that of Germany was 1.072. These are countries of relatively low fertility. In Italy the gross reproduction rate was 1.585 in 1930-32, in Poland it was 1.705 in 1931-32, and in Bulgaria 1.696 in 1934-35. Among the white population of South Africa, fertility is also relatively high; the gross reproduction rate was 1.423 in 1933-34 and 1.495 in 1940. In Australia and New Zealand where, in comparison, fertility is relatively low, the gross reproduction rate was 1.063 and 1.041, respectively, in 1936 and 1.100 and 1.284, respectively, in 1940.*

It is evident that while, apart from the wartime 'boom' in births, fertility in Canada has undoubtedly been declining, the Canadian population is still a considerable distance away from the immediate prospect of numerical diminution. Fertility in British Columbia and Ontario is, however, approaching the danger point.

*Figures from the Statistical Year Book of the League of Nations, 1941-42, pp. 47-49.