before or after each census involved too much inaccuracy. On the other hand, by the use of such estimates important gaps in the knowledge of vital statistics phenomena can be filled.

Table 1 shows the population of Canada distributed by sex and age for the years 1931 to 1944. The figures for 1931 and 1941 are those obtained at those Censuses, while for the intercensal years they are estimates. These estimates are calculated from the Censuses of 1931 and 1941, the births and deaths of each year, and known immigration to, and emigration from, the country.

The population of the 1931 Census was the starting point in the calculation. The census figures by sex and single years of age were used up to age 25, and graduated figures (preserving five-year totals) from age 25 on. The decision to use graduated figures was made after a study of the concentrations on even ages; it was found that these concentrations are greatest at middle and older ages. The sharp fluctuations at younger ages are to be attributed, mainly, to the great variations in the number of births during and after the War of 1914-18, and should not be smoothed out.

The census is taken at the beginning of June. A "census year" may therefore be said to run from June 1 to May 31. In order to obtain the number living at age 0 on June 1 of each year, i.e., the number of children less than 1 year of age, from the number of children born during each census year, the number of those who had died during the same period was subtracted. At each other single year of age, the deaths occurring at that age were subtracted from the census figures to give a first approximation to the number at the next higher age in the following year. This process was carried through successive years to 1941 and, together with known immigrants and emigrants, gave what might be called the 'expected' figures of population for that year. These expected figures were then compared with the actual figures obtained from the 1941 Census, and the differences at each year of age noted. The sum of these differences amounted to about 90,000 persons in all, and is believed to be largely due to unrecorded migration out of the country.

The intercensal estimates arrived at by the method described above were revised in the light of the differences found in 1941. The official revised estimates of the total population were compared with the totals of both sexes and all ages of the original estimates. The differences of each year were distributed between the two sexes and the different ages in the same ratio as the differences between the actual and expected figures were found to be distributed in 1941.

The estimates for the years following 1941 are being made by the same method as that used in the original estimates for the intercensal years prior to 1941. The figures for 1942-44 will be revised following the 1951 Census; those for the years 1932-40 are now final.

Tables similar to Table 1 have been completed for each of the nine provinces. The population of Canada in 1931 and 1941 by sex and age is shown graphically in the chart facing p. 160. Tables 2 to 6 provide a summary of the vital statistics of Canada and the provinces for the years 1926 to 1944.

In comparing the birth, death and marriage rates of the provinces, it is useful to bear in mind that part of the differences observed may be due to differences in the sex and age distribution of their populations. Similarly, changes in these rates over a period of years may be partly due to changes in the sex and age distribution of the population. For example, in recent years the birth rate of Quebec has been approximately the same as that of New Brunswick and considerably higher than that of Prince Edward Island. However, the fertility of the female population has