5. *Development of orphans' benefits*

One important point that should be kept in mind is that neither the death nor the remarriage of a widowed mother affects the payment of orphans' pensions.

The broad assumption on which the development of orphans' benefits was based was that a pension of $25 per month, adjusted in accordance with assumed changes in the Pension Index from 1967 to the year for which the estimates apply, will be payable to each child under age 18 of every male contributor who dies after 1967 and that no pension will be payable under any other circumstances.

The general method of development of orphans' benefits was to determine, for each year covered by the estimates, the population of children under age 18 who were left orphans by reason of the death of their "contributor" fathers after 1967 and to apply to such populations appropriate benefit factors. The details are given below in the form of a series of steps.

Step 1—A distribution of fathers of new born children, according to age, was obtained by averaging such distributions for Canada for the five years 1958 to 1962. (The source of information was the D.B.S. publication "Vital Statistics".)

Step 2—Percentages of fathers who survive 5 years, 10 years, 15 years and 20 years after the birth of a child were produced by application of five-year survival factors based on the Canadian Life Table, 1960-62, to the distribution obtained in Step 1.

Step 3—Complements of the percentages determined in Step 2 were computed. These complements represent the probabilities—in accordance with the Canadian Life Table, 1960-62—that the father of a child aged 5 years, 10 years, 15 years or 20 years will have died.

Step 4—Probabilities corresponding to those described in Step 3 were determined on the basis of the projected mortality rates for the year 2000 and after.

Step 5—From the probabilities determined in Steps 3 and 4, probabilities that the father of a child in the age groups 0-4, 5-9, 10-14 and 15-17 in 1968, 1970, 1975 and quinquennial years thereafter will have died after 1967 were developed by interpolation.

Step 6—Numbers of orphans under age 18 whose fathers will have died after 1967 were obtained for the years 1968, 1970, 1975 and quinquennial years thereafter by application of the probabilities developed in Step 5 to the pertinent populations.

Step 7—Total benefits payable in 1968, 1970, 1975 and quinquennial years thereafter were obtained by multiplication of the numbers developed in Step 6 by $300 increased in accordance with assumed changes in the Pension Index from 1967 to the year for which the calculation is made.

Step 8—Total benefits payable in the years 1969 and 1971 to 1974 were obtained by interpolation between the total amounts developed in Step 7 for the years 1968, 1970 and 1975.

Step 9—Totals for the years 1968 to 1975 were adjusted to take account of expected "lower-than-average" participation among self-employed farmers in the manner described in Appendix 2.