ACTUARIAL NOTE

AGE CHARACTERISTICS OF CHILD'S INSURANCE BENEFICIARIES UNDER OASDI

By Robert J. Myers and Jane M. Ceccarelli
Division of the Actuary

The Old-Age, Survivors, and Disability Insurance program provides benefits to children of an individual who is entitled to old-age or disability insurance benefits or who dies fully or currently insured--if such child is unmarried and has not attained age 18.[1] As of December 31, 1962, the program covered 2,400,000 beneficiaries under age 18, or about 3½% of the total population in this age group. The accompanying table gives, by age, the total number of children in the United States, the number of children in current-payment status under OASDI, and the ratio of the child beneficiaries to the total child population, as of the end of 1962.

A child's insurance benefit is terminated before age 18 if the child (1) dies, (2) marries, (3) is adopted (other than by certain close relatives, in survivor cases), or (4) if the disabled individual upon whom the child is dependent recovers. The probability that any of the first three of these events would occur is small since we are considering a group under age 18. In addition, the probability that the disabled individual upon whom the child is dependent will recover is also small, since the definition of "disability" under the Social Security Act can be said to be one requiring permanent and total disability.

The table shows that the number of beneficiaries increases from 8,000 under age 1 to 280,000 at age 16 and then drops to 272,000 at age 17. It might be thought at first that since age 17 is a "marriageable" age and an "employable" age, such causes for termination or suspension of benefits have a primary effect in producing the leveling off in the number of beneficiaries. However, if we compare the number of beneficiaries to the total population, we find that the exposure at age 17 is 15% less than at age 16--the lower total population at age 17 is a reflection of the significantly lower birth rate during 1945, as compared with subsequent years. It is, therefore, more appropriate to compare the ratio of the child beneficiaries to the total child population by age. These ratios are shown in the table and are also plotted in the accompanying chart. A remarkably smooth curve results, with a beginning point at .19% of population and an end point of 9.84%. It should be noted, however, that these ratios should be reduced by about 3% relatively, since the beneficiaries include those in some areas that are not represented in the population base.

If these beneficiary-population ratios are applied to a stationary population based on a life table (the U.S. Total Persons Life Table for 1959–61 being used for this purpose), we can study the effect of the varying numbers of annual births that have occurred in the past. Under these circumstances, the aggregate ratio is increased from 3.54% to 3.79%.

We may also use these beneficiary-population ratios to estimate the effect on the number of beneficiaries if the age limit of 18 is increased. The ratios can be projected graphically for single years of age beyond 17. These ratios are then adjusted downward to reflect the fact that marriage disqualifies a child for benefits. For example, if benefits were payable for an additional 4 years (up to exact age 22) to unmarried child beneficiaries, the number of child beneficiaries would be increased by 50% on the basis of the stationary population structure indicated previously.

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[1] Benefits are paid after age 18 to children who were permanently and totally disabled continuously since before the attainment of age 18. On December 31, 1962, such children numbered 147,000.

It should be realized that the foregoing analyses and computations are based on the underlying past experience as to creation of orphans (i.e., mortality of fathers). In the future, the beneficiary-population ratios will undoubtedly be lower--from a relative standpoint, somewhat more so at the younger ages of children than at the older ages, since adult male mortality has, and likely will, improve more at the younger ages than at the middle and older ages.

DISTRIBUTIONS OF TOTAL CHILD POPULATION UNDER AGE 18 AND OF OASDI BENEFICIARIES UNDER AGE 18, AS OF DECEMBER 31, 1962
(in thousands)

AGE LAST BIRTHDAY	TOTAL CHILD POPULATION[1]	OASDI BENEFICIARIES IN CURRENT PAYMENT STATUS[2]	BENEFICIARY POPULATION RATIO[3]
0	4,063	8	.19%
1	4,162	20	.48
2	4,151	32	.77
3	4,133	43	1.05
4	4,089	56	1.36
5	4,091	70	1.72
6	4,015	85	2.11
7	3,944	98	2.49
8	3,942	114	2.89
9	3,813	128	3.37
10	3,748	146	3.90
11	3,599	163	4.52
12	3,454	179	5.18
13	3,500	202	5.77
14	3,497	234	6.68
15	3,655	270	7.40
16	3,237	280	8.65
17	2,764	272	9.84
Total	67,857	2,400	3.54

[1] In the 50 States and the District of Columbia.

[2] In the entire United States and foreign countries. The beneficiaries in the 50 States and the District of Columbia represent about 97.3% of the total beneficiaries.

[3] Beneficiary-population ratios are based on unrounded totals.

NOTE: The total child population for ages 3 to 17 is a projection based on the April 1960 census, and on the ratio of births in the January—March period to the births in the April—December period of the appropriate past years. For ages under 3, the total child population is derived from the number of births reduced by a mortality factor of 2½%.

THE PERCENTAGE OF OASDI BENEFICIARIES UNDER AGE 18, IN CURRENT
PAYMENT STATUS, TO THE TOTAL UNITED STATES CHILD POPULATION,
AS OF DECEMBER 31, 1962

Percentage of Child Population

Age Last Birthday