Notes and Brief Reports

Orphanhood—A Diminishing Problem *

The past three and one-half decades have brought a decline of some 3.7 million in the number of orphans under age 18 in the United States.[1] In 1920, about 6.4 million children, or 1 in every 6 of all children under age 18, had lost one or both parents by death. By mid-1954, when the child population was about 37 percent larger, the number of orphans had dropped almost to 2.7 million, or 1 in 20 of the Nation's children. The number of paternal orphans had been reduced by more than half. The number of children who had lost a mother had declined by more than two-thirds (chart 1 and table 1). There was a particularly striking drop in the number of full orphans—that is, of children with both parents dead—from about 750,000 in 1920 to 450,000 in 1930 and approximately 60,000 in 1954. Expressed in another way, full orphans declined from 2 percent of all children under age 18 in 1920 to 1 percent in 1930 and to one-tenth of 1 percent today.

The numbers of orphaned children at different dates have been estimated from life tables for persons of child-bearing ages. It is a matter of common knowledge that mortality rates have been substantially reduced for both men and women in the past decades, and more rapidly for women than for men. Clearly this reduction has far outweighed the long-term decline in child mortality rates and the rise in birth rates during the past 10 years or so. The phenomenal drop in the estimated number of children with both parents dead is attributable to the fact that chances of full orphanhood change in geometric ratio to the change in the

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[1] All figures relate to children under age 18 in the continental United States who have been orphaned at any time. No attempt has been made to estimate the number of orphaned children who were adopted or had acquired a step-parent.
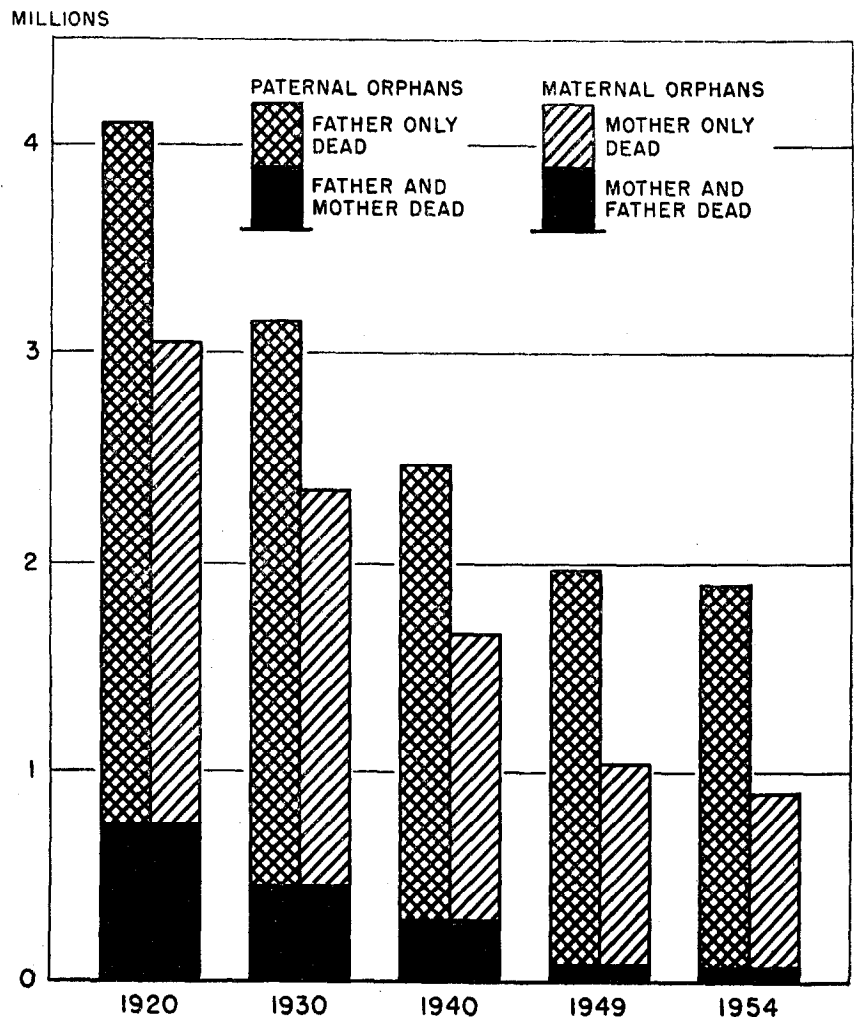
chance of losing one parent. In other words, if the death rates for the fathers and the mothers are halved over a particular period, the chances of full orphanhood are reduced to approximately one-fourth of what they had been.[2]

Orphanhood was a major social problem some decades ago because of the complex needs it created both for economic assistance and for special services to compensate for family disorganization. With the decline in

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[2] The relationship is modified somewhat when account is taken of the fact that the mortality of widowed persons is higher than that of married persons of the same sex and age.

the number of full orphans, however, and increasing emphasis on placement of children in foster homes, the so-called "orphanage" has been going out of existence. The concurrent growth of public income-maintenance programs has made it possible for many widows to keep their children at home. About half of all paternal orphans are receiving benefits under the old-age and survivors insurance program, and the proportion will, of course, rise as the program matures. (It is estimated that perhaps 3 percent of the orphans receiving old-age and survivors insurance benefits are maternal or full orphans entitled on the basis of the mother's work record.) More than three-fifths of all orphans with father dead are receiving benefits as survivors of workers

Chart 1.—*Estimated number of paternal and maternal orphans under age 18 in the United States, 1920–54*

MILLIONS

PATERNAL ORPHANS
FATHER ONLY DEAD
FATHER AND MOTHER DEAD

MATERNAL ORPHANS
MOTHER ONLY DEAD
MOTHER AND FATHER DEAD

1920   1930   1940   1949   1954

covered by some form of social insurance and/or as survivors of veterans. More than 1 in 10 paternal orphans receive aid to dependent children; many of them are ineligible for social insurance, while others are beneficiaries whose benefits do not meet their needs.

The problem of orphanhood has been diminished not only by the decline in its volume but also by the fact that the reduction is directly related to the age of the child. Orphans under age 5, for example, were less than one-third as numerous in 1954 as in 1920, while there were more than half as many orphans who were aged 15-17. This difference would be even greater were it not for the low birth rates before World War II, which means that the total number of children now in their middle teens (the children who have been exposed longest to the risks of orphanhood) is relatively small. Children aged 10-17 with the mother living and father dead comprised almost half of all orphans under age 18 in 1954.

Table 1.—*Estimated number of orphans under age 18 by type, selected dates, 1920–54*

[Continental United States]

Year	All orphans	Father only dead	Mother only dead	Both parents dead
	Number (in thousands)			
1920	6,400	3,350	2,300	750
1930	5,050	2,700	1,900	450
1940	3,840	2,180	1,370	290
Oct. 1, 1949	2,930	1,890	960	80
July 1, 1954 [1]	2,740	1,840	840	60
	Percent of child population			
1920	16.3	8.5	5.9	1.9
1930	11.7	6.3	4.4	1.1
1940	9.5	5.4	3.4	.7
Oct. 1, 1949	6.1	3.9	2.0	.2
July 1, 1954 [1]	5.0	3.4	1.5	.1

[1] The method of estimating follows in general that described in the July 1954 issue of the *Bulletin* (see source), except that orphanhood rates for 1953 were extrapolated on the basis of the annual change in such rates during the preceding 3 years and applied to the child population in 5-year age groups.

Source: 1920: Alfred J. Lotka, "Orphanhood in Relation to Demographic Factors," *Metron*, Vol. 9, No. 2, Aug. 1931 (Rome), table IV, for number of orphans under age 17 in the white population.
1930: Mortimer Spiegelman, "The Broken Family —Widowhood and Orphanhood," *Annals of the American Academy of Political and Social Science*, Nov. 1936, table VIII, for number of orphans under age 16 in the white population.
1940: Louis I. Dublin, Alfred J. Lotka, and Mortimer Spiegelman, *Length of Life*, 1949, table 265.
1949, Louis O. Shudde, "Orphans in the United States, July 1, 1953," *Social Security Bulletin*, July 1954, table 3.

compared with one-third in 1920 (table 2). Of the full orphans, it is notable that in 1954 more than half were aged 15-17 and fewer than one-tenth were under age 10, while in 1920 one-fifth, or 150,000, were under age 10 and more than three-fifths were less than 15 years old.

Without the marked improvement in medical knowledge and health conditions during recent decades, the present orphanhood problem would have been much more serious than it is and the cost of the income-maintenance programs for survivors would have been substantially increased. This fact is illustrated in chart 2, which compares the number of orphans on July 1, 1953, with the number of children who would have been orphans on that date if the mortality conditions of 1911–20 had prevailed during more recent years.[3] In mid-1953, there would have been about 8 million orphaned children, on the basis of 1911–20 mortality rates. In other words, there were then more than 5 million children, or almost 10 percent of the total number under age 18, whose parents might not have been alive had it not been for successful efforts to reduce mortality. As shown in chart 2, the "saving" in the number of full orphans was roughly 10 times the estimated actual number in the population in 1953. The saving in the number of children with the mother only dead was well over twice the number of maternal orphans in that year, and the saving in the number who lost a father exceeded the number of such orphans by about 25 percent.

A further reduction in the number of orphans can be expected. In 1954 nonwhite children were proportionately about twice as numerous among orphans under age 18 as in the child population (about three times as numerous among full orphans), re-

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[3] The 1953 estimates, which were published in the *Bulletin* for July 1954 (pages 16–18), are not entirely comparable with the 1954 estimates because of revisions in the underlying population estimates and in data on children orphaned by the father's death in military service overseas. Revised estimates of the actual number of orphans in mid-1953 would be somewhat lower than those charted.

Table 2.—*Percentage distribution of orphans under age 18 by type and age, 1920 and 1954*

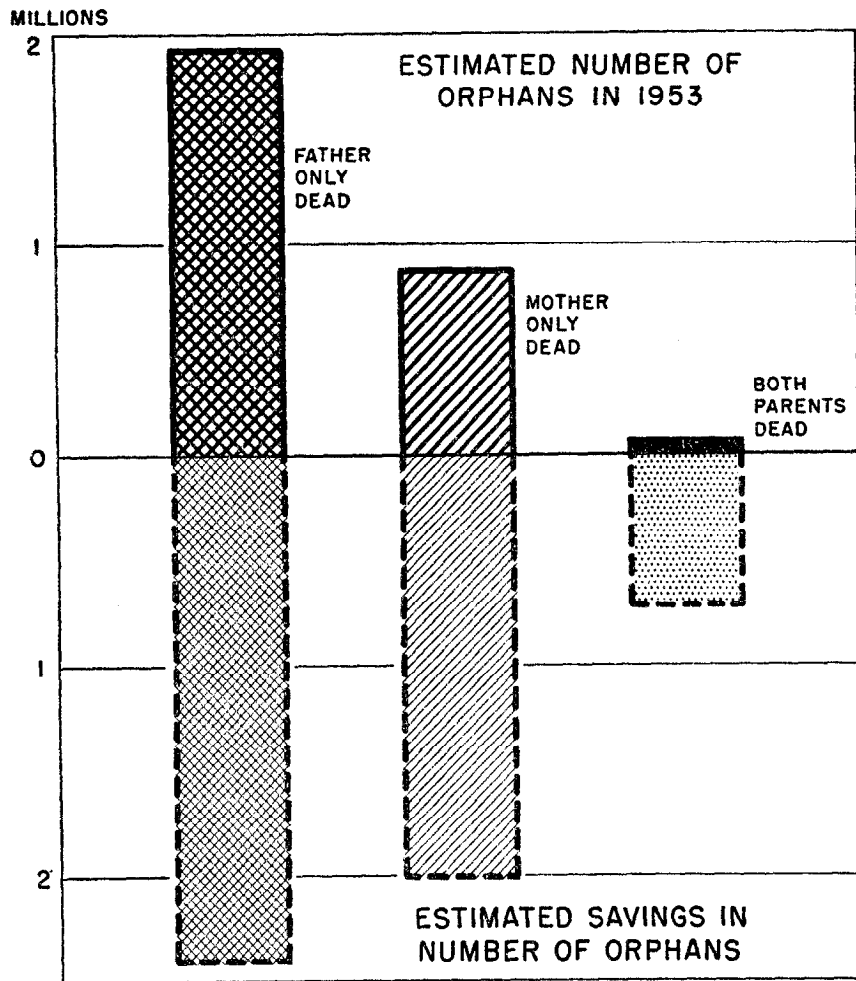| Age	All orphans	Father only dead	Mother only dead	Both parents dead
	1920			
Total	100.0	52.6	35.7	11.7
0-4	9.6	5.3	3.8	.4
5-9	25.0	13.5	9.6	1.9
10-14	38.4	20.0	13.6	4.9
15-17	27.0	13.8	8.7	4.5
	1954			
Total	100.0	67.2	30.6	2.2
0-4	6.7	4.8	1.9	(1)
5-9	22.0	15.0	6.8	.2
10-14	38.0	25.6	11.6	.8
15-17	33.3	21.8	10.3	1.2

[1] Less than 0.05.
Source: See table 1.

flecting the much higher mortality rates of nonwhite persons than of white persons of the same age. If nonwhite children under age 18 in mid-1954 had been subject to the same risks of orphanhood as white children, the number of full orphans in the population at that time would have been more than one-third less than estimated and the total number of children with one parent dead would have been about one-eighth smaller.

Technical Note

The methods used in preparing the original estimates for various dates are described in the articles referred to in the list of sources for table 1. They differ in a number of respects; the most important difference is in the mortality rates applied to the child population. The original estimates for 1920 and 1930 (limited to white orphans under age 17 and age 16, respectively) were based on mortality rates by sex (for the white population) for the year of the estimate rather than for the period of the risk. Since the use of mortality rates for the year of the estimate usually yields an underestimate because of the downward secular trend in death rates, the original estimates were adjusted by the Division of the Actuary to take account of mortality during the years preceding the year of the estimate. Average mortality rates for these periods were also used

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Chart 2.—*Estimated savings¹ in number of orphans under age 18 in 1953 resulting from improvement in mortality from 1920 to 1953*

MILLIONS

ESTIMATED NUMBER OF
ORPHANS IN 1953

FATHER
ONLY
DEAD

MOTHER
ONLY
DEAD

BOTH
PARENTS
DEAD

ESTIMATED SAVINGS IN
NUMBER OF ORPHANS

¹ Estimated total number of children who would have been orphans in 1953, if children under age 18 in 1953 had been subject to the same risks of orphanhood as children under age 18 in 1920, is represented by the full length of each bar.

by the Division of the Actuary to estimate the remaining number of orphans under age 18—that is, the number of white orphans aged 17 in 1920 and aged 16 and 17 in 1930 and the total number of nonwhite orphans under age 18 at each date.

The two most recent estimates are probably more accurate than the early ones because mortality rates by age, race, and sex were available and applied for each of the 18 years required, and the figures were then adjusted to reflect marital-status mortality rates. An allowance was also made for paternal orphans created by deaths of fathers in the Armed Forces overseas, since the population mortality rates do not reflect such deaths.

Because mortality rates are somewhat lower for married persons than for all persons of the same age, sex, and race, the estimates of 1920, 1930, and 1940, which made no allowance for this factor, overestimate somewhat the number of orphans. Information on death rates by marital status was first developed on a Nationwide basis from the 1940 Census and became available in 1945.

The estimates for full orphans in 1920, 1930, and 1940 incorporated an upward adjustment, based on 1921 data for England and Wales, to take account of the fact that the death of the father and mother are not independent events. On the ground that data of this type are not available for the United States and, more

important, that mortality from infectious diseases, especially from tuberculosis, has dropped sharply in recent decades, the 1949 and 1954 estimates for full orphans in table 1 do not incorporate such an allowance. If the full adjustment based on the 1921 foreign data were applied, the estimated number of full orphans in 1949, for example, would be 140,000 instead of 80,000. Without doubt, an estimate so inflated would exaggerate the number of full orphans in the United States under the health conditions of recent years. On the other hand, future estimates of their number could well incorporate the higher mortality rates of the widowed surviving parent, if more reliable data on the mortality of widowed persons are developed.

Proposed Social Security Budget for 1955–56

On January 17, 1955, President Eisenhower submitted to Congress the Budget of the United States Government for the fiscal year ending June 30, 1956. Budgetary expenditures for the year are estimated at a total of $62.4 billion, of which 65 percent, or $40.5 billion, is requested for major national security programs.

In the budget for the Social Security Administration, appropriations are recommended for all existing programs and, in addition, for separate grants for medical care for public assistance recipients and a special program to combat juvenile delinquency. On January 31, the President sent to Congress a separate health message, as reported in this issue of the BULLETIN. The proposed legislation, if enacted, will require budget expenditures in 1955–56 of approximately $37 million, of which $20 million is for the part-year cost of a program of grants-in-aid for medical care for public assistance recipients, $3 million is for improvement and extension of grants for maternal and child health and welfare services, and $3 million is for the special program to combat juvenile delinquency.

Expenditures of the Social Security Administration are estimated at