

**A study of infant mortality
from linked records by**

**Age of Mother,
Total-Birth Order,
and Other Variables**

United States, 1960 Live-Birth Cohort

Infant mortality in the United States, based on a cohort study for infants born alive during 1960, related to age of mother, total-birth order of infant, and other characteristics reported on birth or death records; considers color, sex, and age at death of infants who died during the first year of life.

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SYMBOLS

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A STUDY OF INFANT MORTALITY FROM LINKED RECORDS

BY AGE OF MOTHER, TOTAL-BIRTH ORDER, AND OTHER VARIABLES

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INTRODUCTION

Linkage of infant death records with live-birth records permits the calculation of infant mortality rates according to characteristics that are reported only on the birth record. A total of 107,038 certificates for infant deaths occurring in 1960 and 1961 were matched with certificates for live births occurring in 1960 to obtain the data presented here on infant mortality among a cohort of births in 1960. Certain variables were selected from the matched records, and data were punched into a special deck of cards for computer tabulation. The procedures utilized by the vital statistics reporting areas that cooperated to provide the National Center for Health Statistics with basic information for this study and also those for coding and verifying the data are described in detail in an earlier publication that also describes the limitations of the data.¹

The present report provides information that relates infant mortality rates to age of mother, total-birth order, and illegitimacy by sex, color, and age at death of infant. Previous reports have shown relationships of infant mortality to birth weight and gestation period and have compared neonatal data with similar linked data for the 1950 live-birth cohort.²⁻⁷

SOURCE OF DATA

Data for this nationwide study of infant mortality were obtained from the files of individual

live-birth and death records of 54 vital statistics reporting areas, i.e., the 50 States and the cities of Baltimore, New Orleans, New York City, and Washington, D.C. The study was undertaken by the National Center for Health Statistics to probe aspects of infant mortality in greater depth than is possible by the usual vital statistics technique. When the usual method is employed, rates are based on grouped data obtained from independent sets of records of births and of deaths that occurred during the same period of time. These data include deaths of infants born in the year prior to the record year but not those of infants born in the record year who died in the subsequent year before reaching 1 year of age. In this linkage study, on the other hand, certificates of live birth for infants born in the study year were matched with death certificates of infants who died before reaching age 1.

A disadvantage of the usual method is that analysis is limited to those items that appear in both sets of records. Another is that information obtained for identical items is not necessarily the same on the death as on the birth certificate. One possible source of inconsistency is place of residence which may differ at time of death from that at time of birth, so that death and birth tabulations may show the same infant in different geographic areas. The item on race is another possible source of inconsistency. Birth certificates require that the race of both parents be recorded, and the race of the infant is determined from that information. In contrast,

death certificates ask for the race of the decedent which, in this study, is that of the infant.

Conditions for the inclusion of each individual in the study were that (1) the infant was born alive in 1960 and died before reaching the age of 1 year, and (2) both events occurred in the United States. This method of linking birth certificates with corresponding death certificates has the advantage of dealing with individual records rather than with grouped data. Additionally, more variables are available for study when information is taken from both certificates. Furthermore, discrepancies between information on the two records are eliminated when data are utilized from the birth record for those items that appear on both certificates.

Infant mortality rates for the present study are expressed as numbers of matched birth and infant death records per 1,000 live births that occurred in 1960. It should be noted that these rates differ from those computed by conventional methods because of the differing bases. Rates for 1960 that were calculated by the usual method are slightly higher than those obtained from the linked records in this study.^{1,8} Computations could have been based on number of infants at risk—i.e., infants who survived to each age at death—rather than on total live births. For the characteristics included in this report, however, there is virtually no difference between rates computed in these two ways.

The limitations of the data, including those resulting from record collection, are discussed in detail in previous reports.¹⁻³ It is worthy of recall from these earlier reports that live-birth records could not be located for some deaths due in part to lack of birth registration. Unregistered births were not included in the cohort, and it was not possible to determine the extent of incompleteness of registration. However, independent estimates by the Division of Vital Statistics, National Center for Health Statistics, indicated that in 1960 birth registration was 98.9 percent complete for the United States.¹ The national data for this cohort, therefore, were considered acceptably complete. Other reasons for inability to locate records of live birth include inconsistent spelling of infant's name on the birth and death records, change of name due to adoption, and improper entry of State of birth on the death record.

Of the 107,038 matched live-birth and death records, 61,651 were for males, 45,387 for females, 79,819 for white infants, and 27,219 for all other infants.

RESULTS

The chance of an infant surviving to the first birthday historically has been less for males than for females and less also for infants of other races than for white infants.⁸⁻¹⁰ In this cohort, the mortality rate for male infants exceeded that for females by 30 percent. The rate for all other infants was about double that for white infants. These data also confirm the traditionally high mortality of infants during the first days and weeks of life. Forty percent of the infant deaths occurred during the first day after birth and 65 percent during the first week.

Mortality rates for infants other than white were higher than those for white infants at each age at death. The relative differences were greater during the postneonatal period (28 days-11 months), 2.8 to 1, than during the neonatal period, 1.6 to 1. Thus, the proportion of all infant deaths that occurred in the neonatal period was larger for white infants than for all other infants.

Age of Mother

Infants born to mothers in their teens and to mothers aged 40 years and over have less chance of surviving to the first birthday than do infants born to mothers at intermediate ages. The infant mortality rate was highest for mothers aged 15-19; it declined sharply to the lowest rate at ages 25-29 and increased gradually to nearly the same high level at ages 40-44 (table A and figure 1).

Infant mortality rates for mothers in the youngest and oldest age groups were 31 and 22 percent, respectively, above the rate for all mothers, while the rate for mothers aged 25-29 was 11 percent lower. The high rate among teenage mothers (ages 15-19) contributed substantially to total infant mortality. Births to these young mothers accounted for 14 percent of all births; the infant deaths among them (19,240) constituted 18 percent of all infant

Table A. Infant mortality rates, by sex, color, and age at death of infant; and age of mother: United States, 1960 live-birth cohort

Sex, color, and age at death of infant	All ages	Age of mother ¹						
		15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	
Rate per 1,000 live births								
Both sexes		25.1	32.8	24.2	22.4	23.7	25.5	30.6
Under 1 day		10.2	12.3	9.5	9.4	10.3	10.9	12.0
1-6 days		6.3	7.8	5.9	5.5	6.2	6.9	8.6
7-27 days		1.9	2.6	1.9	1.7	1.8	1.9	2.5
28 days-11 months		6.7	10.1	6.9	5.8	5.3	5.8	7.5
Male		28.3	37.0	27.4	25.2	26.5	28.2	33.8
White		25.1	31.8	24.5	22.6	24.0	25.3	30.8
Under 1 day		10.6	12.8	9.9	9.9	10.7	11.4	12.9
1-6 days		6.8	8.4	6.5	5.9	6.9	7.5	9.4
7-27 days		1.8	2.1	1.8	1.6	1.8	1.7	2.5
28 days-11 months		5.9	8.6	6.2	5.2	4.7	4.7	6.0
All other		46.0	55.4	44.7	41.7	41.2	45.7	51.1
Under 1 day		16.0	18.3	15.4	14.5	15.9	15.2	17.1
1-6 days		9.8	11.6	8.8	9.1	8.8	11.2	13.3
7-27 days		4.1	5.1	4.1	3.6	3.6	3.9	3.7
28 days-11 months		16.2	20.4	16.4	14.4	13.0	15.3	17.2
Female		21.8	28.4	20.8	19.4	20.7	22.8	27.3
White		19.1	24.1	18.2	17.2	18.2	20.4	25.4
Under 1 day		8.1	9.5	7.5	7.5	8.4	9.2	10.5
1-6 days		4.9	6.0	4.6	4.4	4.8	5.5	6.6
7-27 days		1.4	1.8	1.4	1.2	1.3	1.4	2.0
28 days-11 months		4.7	6.8	4.8	4.1	3.7	4.2	6.2
All other		36.7	43.4	35.5	33.0	35.4	36.7	38.4
Under 1 day		12.7	14.1	11.9	12.1	13.4	12.9	10.0
1-6 days		7.2	8.0	7.1	6.0	7.5	7.3	10.7
7-27 days		3.6	4.6	3.3	3.0	3.5	4.0	4.0
28 days-11 months		13.2	16.7	13.2	11.8	11.0	12.5	13.7

¹ Under 15 years and 45 years and over omitted; too few cases.

deaths. In contrast, births to mothers aged 40-44 constituted only 2 percent of all births.

The patterns of mortality rates by maternal age were similar for white and all other infants, that is, high for extreme ages, low for intermediate ages, and lowest at ages 25-29 years. The

relative variations are, however, greater at the extreme ages for white infants, as shown by the ratio of the rate for each maternal age group to the rate for all ages within each color-sex group. For intermediate ages the ratios differ almost not at all:

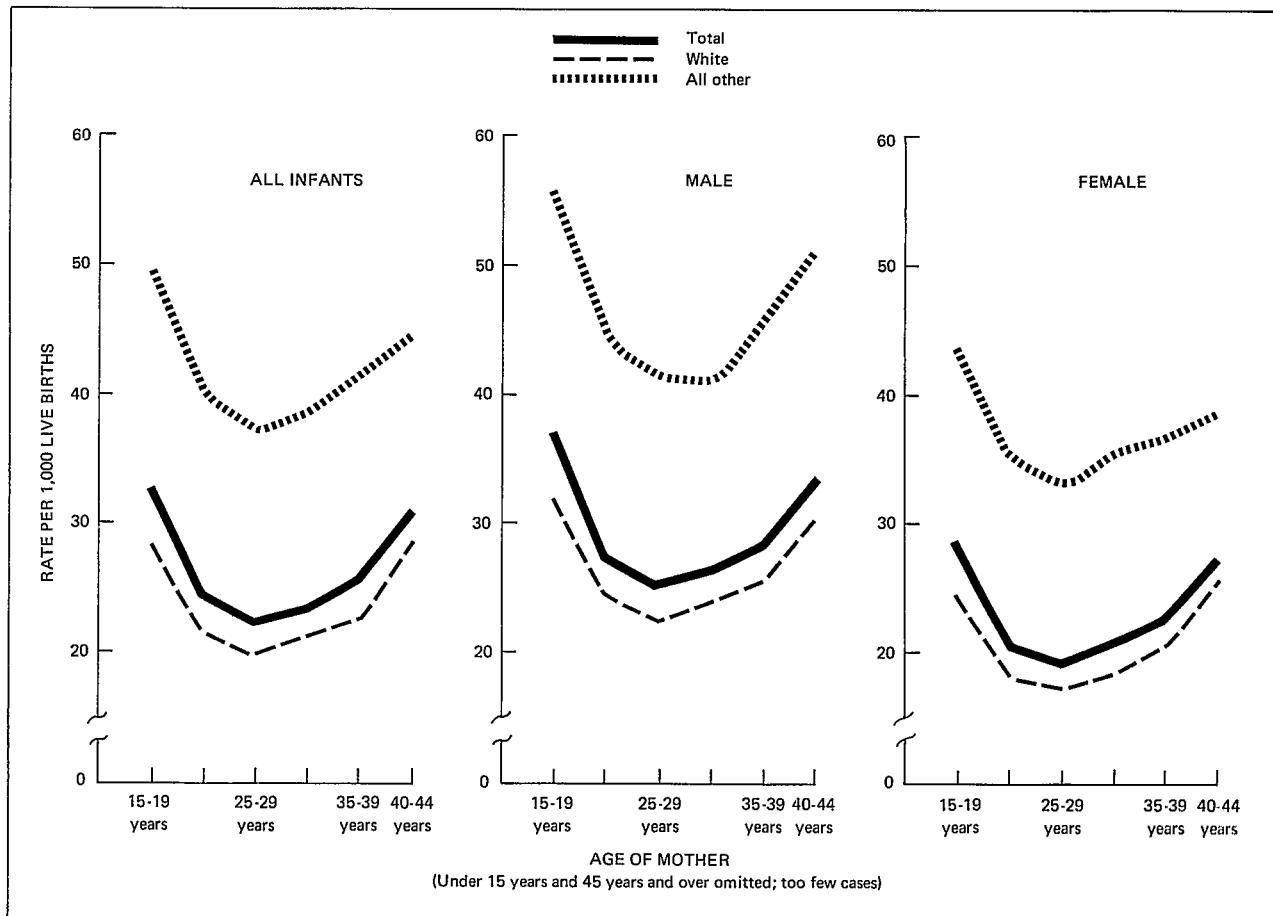


Figure 1. Infant mortality rates, by sex and color of infant and age of mother: United States, 1960 live-birth cohort.

Color and sex of infant	All ages	Age of mother ¹					
		15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years
Ratio of mortality rate for each age group to rate for combined ages in each color-sex group							
All infants	1.00	1.31	0.96	0.89	0.94	1.02	1.22
Male	1.00	1.31	0.97	0.89	0.94	1.00	1.19
Female	1.00	1.30	0.95	0.89	0.95	1.05	1.25
White	1.00	1.27	0.96	0.90	0.95	1.03	1.27
Male	1.00	1.27	0.98	0.90	0.96	1.01	1.23
Female	1.00	1.26	0.95	0.90	0.95	1.07	1.33
All other	1.00	1.20	0.97	0.90	0.93	1.00	1.08
Male	1.00	1.20	0.98	0.91	0.90	0.99	1.11
Female	1.00	1.18	0.97	0.90	0.96	1.00	1.05

¹ Under 15 years and 45 years and over omitted; too few cases.

Although the overall mortality rate for all other infants was about 87 percent above that for white infants, the disadvantage associated with the mothers of these infants being under age 20 or 40 years and over was relatively small.

It should be noted that 20 percent of other infants born alive were to teenage mothers as contrasted with 13 percent of white live births. A reasonable inference is that the proportionately smaller group of teenage mothers of white infants were more highly selected with respect to factors adversely affecting infant survival than are the large group of teenage mothers of other infants.

For both male and female infants, patterns of mortality rates by maternal age were almost identical (although the level of rates for males

was higher by about 30 percent). The main exception was that, although there was an increase in rates for both male and female infants born to mothers aged 35 and over, the increase for females was larger. This may, perhaps, be explained partially as follows. First, there is evidence that the frequency of plural births increases with age of mother and that fewer males from these pregnancies are liveborn, i.e., the fetal death rate from such pregnancies is probably greater for males than for females.¹¹ Second, infants from these plural births are generally of low weight at time of delivery and have a high mortality risk. Thus, the greater mortality rate of female infants of mothers 35 and over may reflect the higher mortality among the "excess" of small liveborn females from plural births.

Examination of the ratios of rates by maternal age for each color-sex group shows that the smaller increase in rates for male than for female infants of mothers 35 years and over occurred only for the white group. However, the death rate for male infants other than white was as low at maternal ages 30-34 as at ages 25-29—the only color-sex group for which this was true.

The U-shaped pattern of infant mortality rates by maternal age (figure 1 and table A) holds also for infants dying at various ages. This is evident from the table below in which the rate for each maternal age group is expressed as a ratio of the rate for all ages in each age-at-death category.

Age at death of infant	All ages	Age of mother ¹					
		15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years
Ratio of mortality rate for each age group to rate for combined ages in each age-at-death category							
Under 1 day	1.00	1.21	0.93	0.92	1.01	1.07	1.18
1-6 days	1.00	1.24	0.94	0.87	0.98	1.10	1.37
7-27 days	1.00	1.37	1.00	0.90	0.95	1.00	1.32
28 days-11 months	1.00	1.51	1.03	0.87	0.79	0.87	1.12

¹ Under 15 years and 45 years and over omitted; too few cases.

The chance of survival for an infant born to a teenage mother (aged 15-19), relative to the chance for all infants, worsens substantially during successive parts of the first year of life. The same is true, to a minor degree, for infants of mothers aged 20-24. On the other hand, the relative chance of survival increases for infants of mothers aged 30-39. The influence of

environmental factors as opposed to biological factors on survival increases with time after birth; these changes in relative chance of survival perhaps reflect the more advantageous home environment of infants of older mothers in contrast to that of infants of very young mothers. Neonatal mortality rates were lowest for infants of mothers aged 25-29, while post-neonatal mortality rates were lowest at ages 30-34. In addition, rates were lower for infants of mothers aged 20-24 than for those aged 30-34 during the first week of life, while the reverse was true for the remainder of the neonatal period. This tendency was found to be more marked for white than for all other infants. Death rates for the latter were much higher than those for the former at every age at death, but especially after the first week of life. Thus, there was less variation in risk by age at death among all other infants than among white infants regardless of maternal age.

Total-Birth Order

Total-birth order refers to the number of children ever born to the mother; this includes fetal deaths. In this report, the term "birth order" is used interchangeably with "total-birth order."

Infants of high birth order had the least favorable chance of living to the first birthday; those of first order, the best. Infant mortality rates rose gradually through the fifth order, with an abrupt rise at the higher orders (figure 2 and table B). The latter rate exceeded that for first births by 71 percent, and the rate for all births by 45 percent. Sixth and higher order births contributed considerably to total infant mortality; 11 percent of all births but 17 percent of all deaths were of this category. Rates were highest at the upper extreme for both white and all other infants.

The pattern of rates for white infants by birth order differed from that for all other infants. Unlike rates for white infants, which increased regularly throughout the birth-order span, those for all other infants declined from second to third, remained constant at fourth, then rose (figure 2). These variations reflect the patterns among infants other than white, both male and female, who died during the first day after birth and at ages 1-6 days (table B).

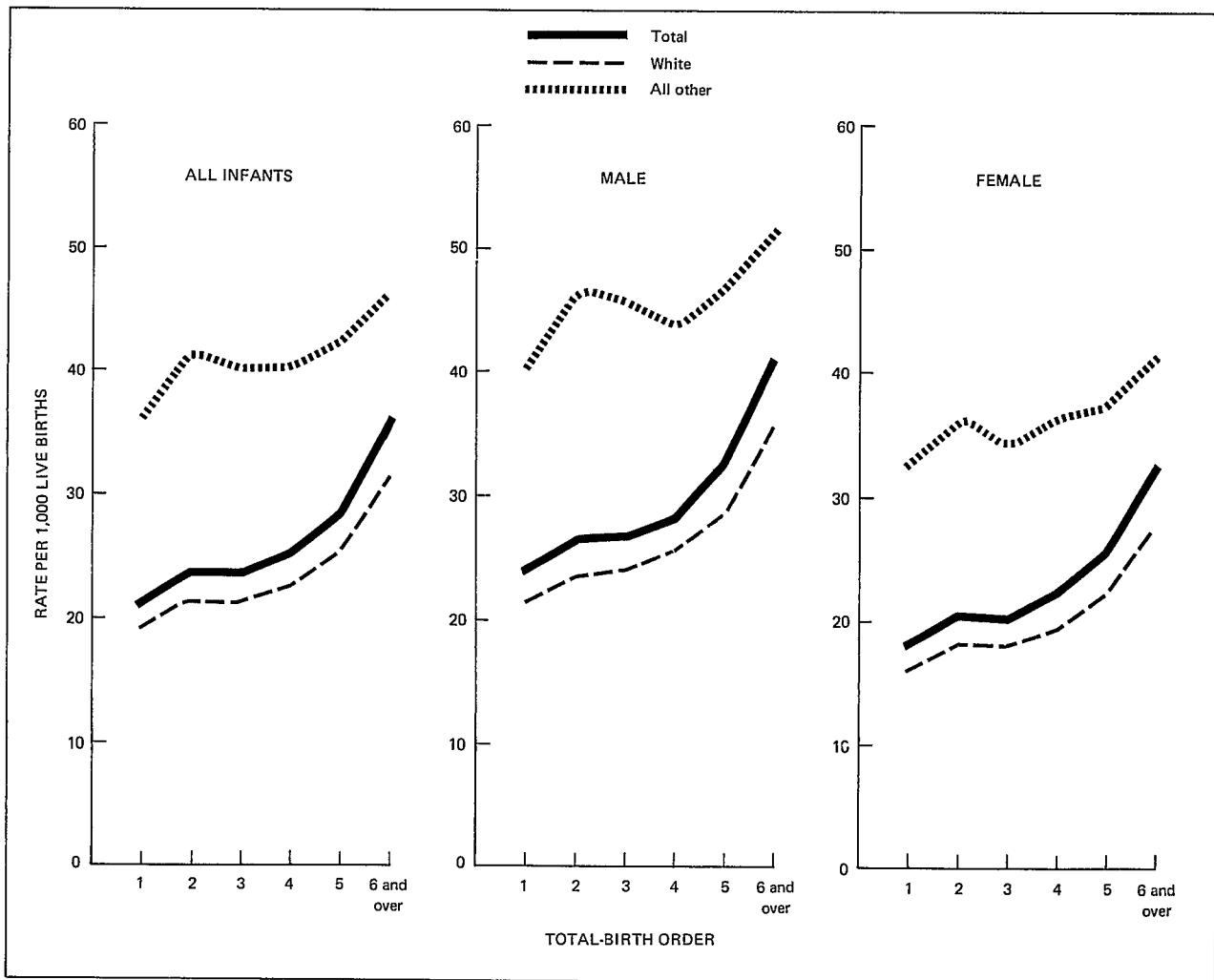


Figure 2. Infant mortality rates, by sex and color of infant and total-birth order: United States, 1960 live-birth cohort.

Among white infants, the rate for third births was lower than that for second only for male infants aged 1-6 days and for female infants under 1 day of age.

The relationship of infant mortality to birth order may be compared through examination of the ratio of the rate for each birth order to the rate for combined birth orders in each color-sex group. The ratios showed that the variations among males were similar to those among females and also to those among white infants regardless of sex. At the extremes of the birth-order categories, the rates were, respectively, about 15 percent below and 45 percent above the rates for all births within each of these

groups. Rates for fourth births were nearest those for all births combined for each sex and each color group.

Sex and color of infant	All births	Total-birth order					
		1	2	3	4	5	6 and over
Ratio of mortality rate for each birth order to rate for combined birth orders in each sex and color group							
Total	1.00	0.85	0.94	0.94	1.01	1.15	1.45
Male	1.00	0.86	0.94	0.95	1.00	1.14	1.44
Female	1.00	0.84	0.94	0.93	1.02	1.17	1.47
White	1.00	0.86	0.95	0.96	1.02	1.16	1.43
All other	1.00	0.88	1.00	0.98	0.98	1.02	1.11

Table B. Infant mortality rates by sex, color, and age at death of infant; and total-birth order: United States, 1960 live-birth cohort

Sex, color, and age at death of infant	All births	Total-birth order					
		1	2	3	4	5	6 and over
Rate per 1,000 live births							
Both sexes	25.1	21.3	23.6	23.7	25.4	28.9	36.4
Under 1 day	10.2	8.8	9.6	9.4	10.4	11.8	13.9
1-6 days	6.3	5.9	6.0	5.9	6.1	6.7	8.3
7-27 days	1.9	1.7	1.8	1.8	1.9	2.2	3.0
28 days-11 months	6.7	5.0	6.2	6.6	7.0	8.2	11.1
Male	28.3	24.2	26.6	26.8	28.3	32.2	40.6
White	25.1	21.8	23.8	24.1	25.6	28.8	35.7
Under 1 day	10.6	9.2	10.0	10.0	10.7	12.5	15.3
1-6 days	6.8	6.4	6.6	6.4	6.7	7.2	9.1
7-27 days	1.8	1.6	1.7	1.7	2.0	2.0	2.6
28 days-11 months	5.9	4.6	5.6	5.9	6.2	7.1	8.7
All other	46.0	40.2	46.5	46.0	44.1	46.9	51.1
Under 1 day	16.0	14.8	16.3	16.0	15.7	15.8	16.5
1-6 days	9.8	9.6	10.2	9.5	8.6	9.1	10.6
7-27 days	4.1	3.7	4.2	4.3	3.4	4.1	4.7
28 days-11 months	16.2	12.1	15.8	16.2	16.4	17.9	19.3
Female	21.8	18.3	20.4	20.3	22.2	25.5	32.1
White	19.1	16.1	18.2	18.2	19.6	22.5	27.7
Under 1 day	8.1	6.9	7.8	7.5	8.6	9.9	11.6
1-6 days	4.9	4.4	4.6	4.7	5.0	5.5	6.6
7-27 days	1.4	1.3	1.3	1.3	1.4	1.6	2.1
28 days-11 months	4.7	3.5	4.5	4.8	4.7	5.5	7.4
All other	36.7	32.6	36.0	34.6	36.6	37.7	41.1
Under 1 day	12.7	12.3	12.9	11.5	12.8	12.6	13.1
1-6 days	7.2	7.4	7.1	6.4	6.5	7.4	7.7
7-27 days	3.6	3.2	3.3	3.5	3.5	3.5	4.4
28 days-11 months	13.2	9.6	12.9	13.2	13.9	14.2	15.8

For infants other than white, ratios for fifth and sixth births were much lower than those for white infants, but the ratios were based on relatively small numbers of deaths. Also, the variation in rates for other infants between

extreme birth orders was narrower than for white infants. The rate for first births was 12 percent lower and that for sixth and higher births was only 11 percent greater than the index rate (all birth orders).

Ratios of the rate for each birth order to the rate for combined birth orders are shown below by color and age at death of infant.

Color and age at death of infant	All births	Total-birth order					
		1	2	3	4	5	6 and over
Ratio of mortality rate for each birth order to rate for combined birth orders in each color and age-at death group							
White	1.00	0.86	0.95	0.96	1.02	1.16	1.43
Under 1 day	1.00	0.86	0.95	0.94	1.03	1.19	1.44
1-6 days	1.00	0.93	0.95	0.95	0.98	1.07	1.34
7-27 days	1.00	0.88	0.94	0.94	1.06	1.13	1.50
28 days-11 months	1.00	0.77	0.96	1.02	1.04	1.21	1.53
All other	1.00	0.88	1.00	0.98	0.98	1.02	1.11
Under 1 day	1.00	0.94	1.01	0.96	0.99	0.99	1.03
1-6 days	1.00	1.00	1.02	0.94	0.89	0.97	1.08
7-27 days	1.00	0.90	0.95	1.00	0.87	0.97	1.15
28 days-11 months	1.00	0.74	0.97	1.00	1.03	1.10	1.20

Patterns of ratios by age at death for white infants resembled the pattern for all white infants combined. That is, most of the ratios for the lower three birth orders were lower than the index rate, and most of those for the higher three orders exceeded the index rate. The increase in rates with birth order is less for deaths at 1-6 days than for deaths at under 1 day and at 1 week and over; the steepest gradient is for postneonatal mortality, 28 days-11 months of age.

As noted above, infant mortality varied less by birth order for all other infants than for white infants. There was no discernible change in rates by birth order for deaths occurring at ages under 1 day and 1-6 days. Postneonatal mortality showed a definite increase with rise in birth order, while death rates at ages 7-27 days showed a somewhat irregular and weak pattern of increase. Thus, birth order appeared to be an important factor in neonatal mortality of white infants but not of other infants. In the postneonatal period birth order is a stronger factor among white than among all other infants.

Infant mortality rates according to birth order are shown in figure 3 by sex, color, and age at death. In each color group, the patterns of rates for males and females are similar. On the other hand, age-at-death curves for white infants were, with two exceptions, continuously upward, while for all other infants they tended to fluctuate.

In general, there was a narrowing of the color differential with higher birth orders, and this was true in each age-at-death group.

Sex and age at death of infant	Total-birth order					
	1	2	3	4	5	6 and over
Male						
Ratio of mortality rates for all other infants to rates for white infants						
Under 1 day	1.61	1.63	1.60	1.47	1.26	1.08
1-6 days	1.50	1.55	1.48	1.38	1.28	1.17
7-27 days	2.31	2.47	2.53	1.70	2.05	1.81
28 days-11 months	2.63	2.82	2.75	2.65	2.52	2.22
Female						
Ratio of mortality rates for all other infants to rates for white infants						
Under 1 day	1.78	1.65	1.53	1.49	1.27	1.13
1-6 days	1.68	1.54	1.36	1.30	1.35	1.17
7-27 days	2.46	2.54	2.69	2.50	2.19	2.10
28 days-11 months	2.74	2.87	2.75	2.96	2.58	2.14

Age of Mother and Total-Birth Order

Infant mortality rates by birth order for all ages of mother combined obscured differing patterns at various age levels. Highly favorable chances for surviving the first year of life occurred among first infants of mothers in their early twenties, first and second infants of mothers in their later twenties, and third infants of mothers in their early thirties (table C and figure 4).

Rates by age of mother increased from first birth order on for mothers under age 25, with the increase being very sharp for teenage mothers (ages 15-19). For each 5-year age group from 25 on, rates declined through the lower birth orders before rising at higher birth orders. There is a clear pattern of high rates for high birth order infants of young mothers, and for infants of older mothers at extreme birth orders.

Attention was directed in a previous section to rates for second births which, in some segments of the cohort, were lower than those for some later births. However, it is obvious from table C that among mothers aged 30 and over, rates for second births were higher than those for third and/or fourth births. These variations were sufficiently strong among all other infants of mothers aged 30 and over to markedly affect the overall birth order rates for the group. A very slight but similar effect prevailed for female infants.

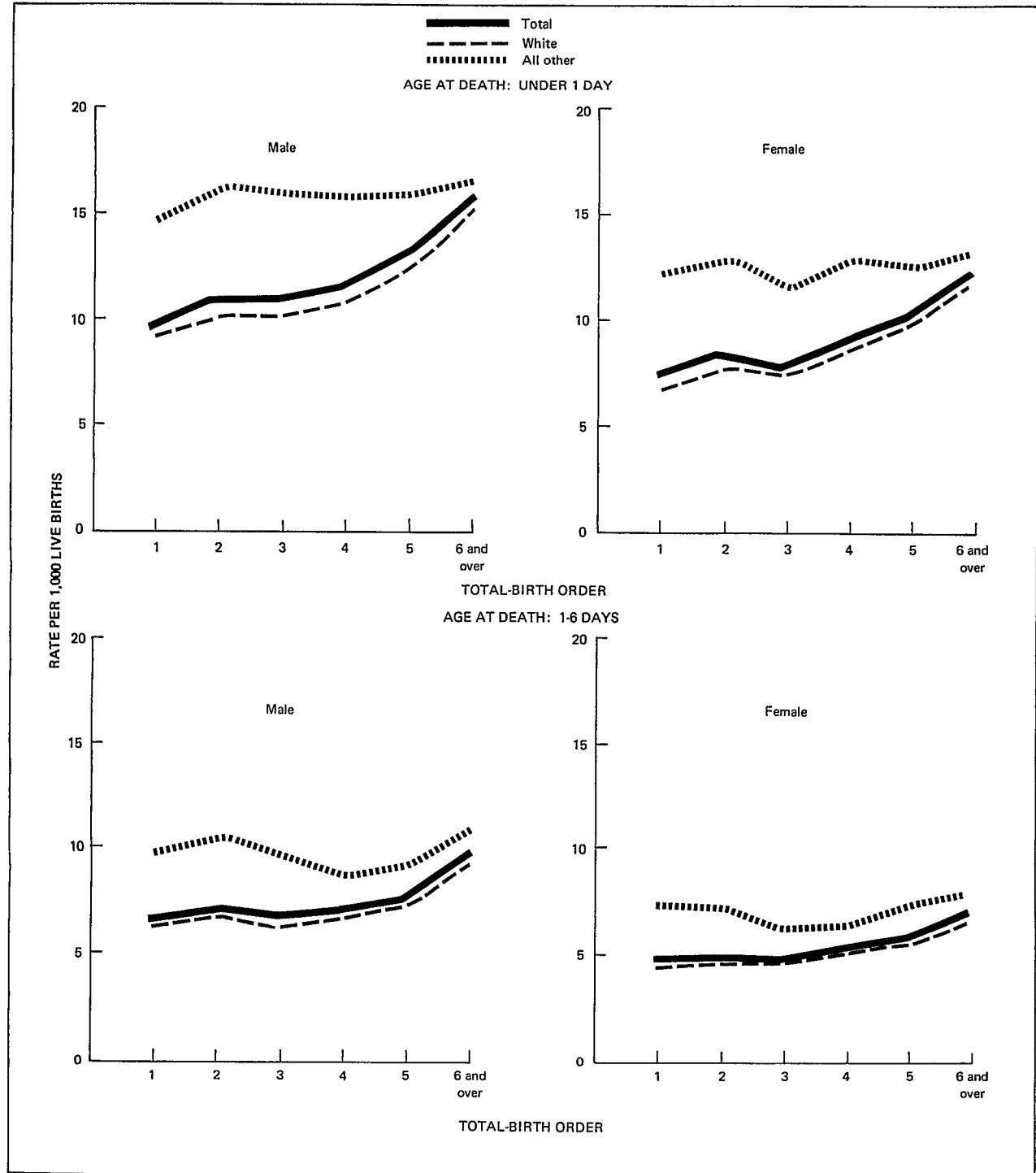


Figure 3. Infant mortality rates, by age at death, sex, and color of infant; and total-birth order: United States, 1960 live-birth cohort.

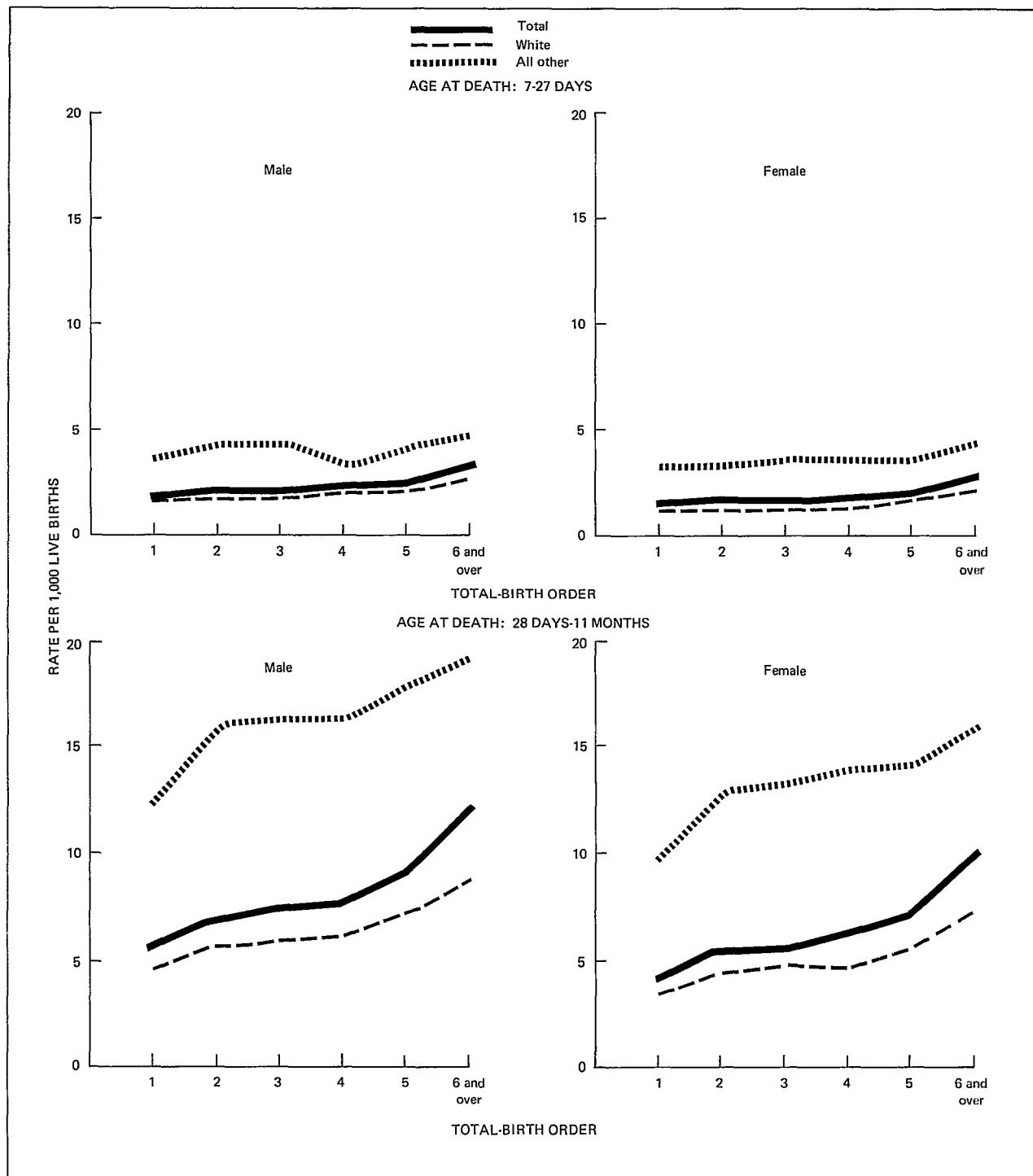


Figure 3. Infant mortality rates, by age at death, sex, and color of infant; and total-birth order: United States, 1960 live-birth cohort.—Con.

Table C. Infant mortality rates by sex and color of infant, age of mother, and total-birth order: United States, 1960 live-birth cohort

Sex and color of infant and age of mother	All births	Total-birth order					
		1	2	3	4	5	6 and over
<u>All infants</u>		Rate per 1,000 live births					
Mothers of all ages ¹	25.1	21.3	23.6	23.7	25.4	28.9	36.4
15-19 years	32.8	26.1	42.7	54.7	63.4	96.9	140.0
20-24 years	24.2	17.2	21.8	27.3	35.1	45.2	58.7
25-29 years	22.4	17.5	17.3	18.9	22.4	28.5	39.7
30-34 years	23.7	24.1	19.3	18.2	20.2	23.6	33.5
35-39 years	25.5	27.7	22.8	21.0	20.9	22.0	32.0
40-44 years	30.6	33.4	31.2	26.8	24.1	25.0	35.3
<u>Male</u>							
Mothers of all ages	28.3	24.2	26.6	26.8	28.3	32.2	40.6
15-19 years	37.0	29.5	48.2	61.1	69.3	120.2	135.3
20-24 years	27.4	19.5	24.6	31.0	39.7	52.0	67.7
25-29 years	25.2	20.0	19.5	21.5	25.2	32.3	43.9
30-34 years	26.5	27.3	21.9	21.1	22.2	25.7	37.2
35-39 years	28.2	32.1	24.7	23.2	23.0	23.6	35.7
40-44 years	33.8	41.3	34.1	28.6	26.0	26.1	39.4
<u>Female</u>							
Mothers of all ages	21.8	18.3	20.4	20.3	22.2	25.5	32.1
15-19 years	28.4	22.5	37.0	47.9	57.3	73.7	144.4
20-24 years	20.8	14.9	18.9	23.5	30.3	38.2	49.2
25-29 years	19.4	14.8	14.8	16.3	19.5	24.6	35.3
30-34 years	20.7	20.7	16.5	15.1	18.0	21.5	29.7
35-39 years	22.8	23.2	20.8	18.8	18.8	20.4	28.2
40-44 years	27.3	25.6	28.2	25.0	22.2	23.9	30.9
<u>White</u>							
Mothers of all ages	22.2	19.1	21.1	21.2	22.7	25.7	31.8
15-19 years	28.1	23.1	37.2	47.4	51.6	96.8	130.4
20-24 years	21.4	16.0	20.2	24.9	31.7	40.1	53.4
25-29 years	20.0	16.2	16.2	17.7	20.8	26.2	35.2
30-34 years	21.2	22.1	18.1	17.1	18.7	22.1	29.6
35-39 years	22.9	25.5	21.4	19.8	19.7	20.5	28.0
40-44 years	28.1	32.9	30.2	25.6	23.0	23.6	32.0
<u>All other</u>							
Mothers of all ages	41.4	36.4	41.3	40.4	40.4	42.3	46.1
15-19 years	49.5	39.3	58.4	66.7	74.8	96.9	150.6
20-24 years	40.2	29.5	34.6	39.3	44.8	53.9	63.8
25-29 years	37.3	30.4	30.0	31.5	33.4	37.3	46.7
30-34 years	38.4	42.2	32.3	31.7	34.7	33.8	42.0
35-39 years	41.2	48.0	38.0	36.8	34.0	35.3	43.2
40-44 years	44.7	38.5	44.3	42.9	37.8	40.0	46.1

¹ Under 15 years and 45 years and over omitted; too few cases.² Deaths less than 20, live births 100 or more.

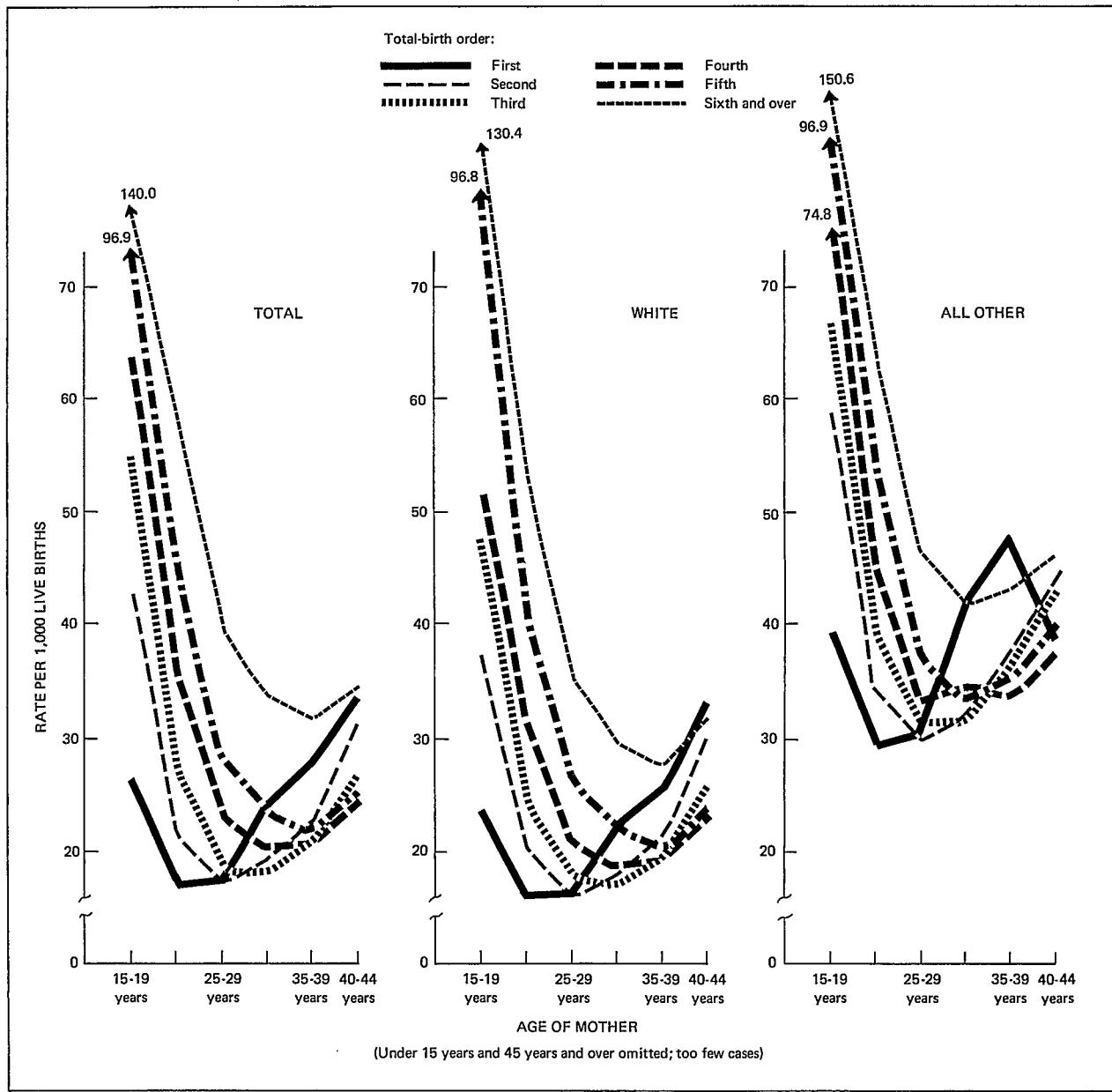


Figure 4. Infant mortality rates, by total-birth order, color of infant, and age of mother: United States, 1960 live-birth cohort.

Ratios of the infant mortality rate for each birth order to the rate for combined birth orders for each maternal age group were calculated separately for white and for all other infants. These ratios clearly define the pattern of most favorable rates, the best being on the order of 20 percent lower than the rates for combined birth orders in pertinent age groups (table D).

Divergence of birth order rates from those for all births within parallel age groups was less for all other infants than for white infants. That is, rates varied less by birth order within each age group for all other infants than for white infants (table D).

It is recalled that the infant mortality rate for infants other than white exceeded that for white

Table D. Ratio of mortality rates for each birth order to rate for all birth orders, each maternal age group, by color of infant and age of mother: United States, 1960 live-birth cohort

Color of infant, age of mother ¹	All births	Total-birth order						
		1	2	3	4	5	6 and over	
<u>Total</u>		Ratio of mortality rates for each birth order to rate for all birth orders						
Mothers of all ages	1.00	0.85	0.94	0.94	1.01	1.15	1.45	
15-19 years	1.00	0.80	1.30	1.67	1.93	2.95	4.27	
20-24 years	1.00	0.71	0.90	1.13	1.45	1.87	2.43	
25-29 years	1.00	0.78	0.77	0.84	1.00	1.27	1.77	
30-34 years	1.00	1.02	0.81	0.77	0.85	1.00	1.41	
35-39 years	1.00	1.09	0.89	0.82	0.82	0.86	1.26	
40-44 years	1.00	1.09	1.02	0.88	0.79	0.82	1.15	
<u>White</u>								
Mothers of all ages	1.00	0.86	0.95	0.96	1.02	1.16	1.43	
15-19 years	1.00	0.82	1.32	1.69	1.84	3.44	4.64	
20-24 years	1.00	0.75	0.94	1.16	1.48	1.87	2.50	
25-29 years	1.00	0.81	0.81	0.89	1.04	1.31	1.76	
30-34 years	1.00	1.04	0.85	0.81	0.88	1.04	1.40	
35-39 years	1.00	1.11	0.93	0.86	0.86	0.90	1.22	
40-44 years	1.00	1.17	1.08	0.91	0.82	0.84	1.14	
<u>All other</u>								
Mothers of all ages	1.00	0.88	1.00	0.98	0.98	1.02	1.11	
15-19 years	1.00	0.79	1.18	1.35	1.51	1.96	3.04	
20-24 years	1.00	0.73	0.86	0.98	1.11	1.34	1.59	
25-29 years	1.00	0.82	0.80	0.84	0.90	1.00	1.25	
30-34 years	1.00	1.10	0.84	0.83	0.90	0.88	1.09	
35-39 years	1.00	1.16	0.92	0.89	0.82	0.86	1.05	
40-44 years	1.00	0.86	0.99	0.96	0.85	0.90	1.03	

¹Under 15 years and 45 years and over omitted; too few cases.

infants by 87 percent. But, in each birth-order category above the second, white infants did not have as much of an advantage over all other infants when born to younger mothers, in contrast to those born to older mothers. For age groups under 30, the advantage declined with each succeeding birth order, while from age 30 on, the advantage remained high through fourth or fifth order births.

Age of mother	All births	Total-birth order						
		1	2	3	4	5	6 and over	
		Ratios of mortality rates for all other infants to rates for white infants						
Mothers of all ages ¹	1.87	1.91	1.96	1.91	1.78	1.65	1.45	
15-19 years	1.76	1.70	1.57	1.41	1.45	1.00	1.16	
20-24 years	1.88	1.84	1.71	1.58	1.41	1.34	1.20	
25-29 years	1.87	1.88	1.85	1.78	1.61	1.42	1.33	
30-34 years	1.81	1.91	1.79	1.85	1.86	1.53	1.42	
35-39 years	1.80	1.88	1.78	1.86	1.73	1.72	1.54	
40-44 years	1.59	1.17	1.47	1.68	1.64	1.70	1.44	

¹Under 15 years and 45 years and over omitted; too few cases.

Illegitimate Births

Some mortality data are available from the 1960 live-birth cohort regarding illegitimate births. Because of problems in processing, data for legitimate births only are not available, eliminating the possibility of comparisons between rates for legitimate and illegitimate births.

Of the 107,038 records in this cohort, 7,371 were for illegitimate births. Of the latter, 1,824 were for white infants and 5,547 were for all other infants. The illegitimacy ratio was 0.5 per 1,000 for white infants and 8.0 per 1,000 for all other infants. As in the instance of all live births, mortality among illegitimate births was higher for other infants than for white infants except at ages under 1 week for infants of mothers aged 30 and over (table E and the following table).

Age at death of infant	All ages	Age of mother ¹			
		15-19 years	20-24 years	25-29 years	30 years and over
Ratios of mortality rates for all other infants to rates for white infants					
All infants	1.55	1.80	1.60	1.50	1.33
Under 28 days	1.24	1.32	1.22	1.25	0.99
Under 1 day	1.13	1.19	1.12	1.08	0.97
1-6 days	1.20	1.26	1.09	1.53	0.90
7-27 days	1.89	2.08	2.21	1.42	1.43
28 days-11 months ..	2.61	2.45	3.17	2.17	2.79

¹ Under 15 years omitted; too few cases.

For both color groups, mortality was higher among illegitimate births than among all live births (table E). The higher mortality among illegitimate births may be attributable in part to reluctance of the mothers to seek prenatal care. Postnatal care too may have been inadequate because of lack of financial resources and perhaps because of lack of knowledge about proper health care and nutrition. Forty percent of the mothers were under 20 years of age and 70 percent were under 25. Furthermore, three-fourths were mothers of all other infants; perhaps many were in low-income brackets. Factors in the socioeconomic environment, therefore, may contribute to the levels of mortality among illegitimate births.

Infant mortality rates by maternal age for illegitimate births were similar for the two color groups; that is, higher at the extremes than at

intermediate ages, as was the case for all live births. For the latter, excess mortality risk in each age-at-death category was largest in the youngest age group. For illegitimate births, the greatest risk was during the first 6 days among white infants of mothers aged 30 years and over and at ages 7 days and over among white infants of mothers aged 25-29. Reasons for this cannot be determined from the available data.

Color and age at death of infant	All ages	Age of mother ¹			
		15-19 years	20-24 years	25-29 years	30 years and over
<u>Illegitimate births</u>					
White	1.00	1.00	0.92	0.99	1.18
Under 1 day	1.00	0.98	0.94	1.04	1.15
1-6 days	1.00	0.97	1.00	0.70	1.43
7-27 days	1.00	0.96	0.89	1.22	1.11
28 days-11 months ..	1.00	1.09	0.79	1.16	0.99
All other	1.00	1.03	0.95	0.96	1.02
Under 1 day	1.00	1.03	0.93	0.99	0.98
1-6 days	1.00	1.02	0.91	0.89	1.08
7-27 days	1.00	1.06	1.04	0.92	0.84
28 days-11 months ..	1.00	1.02	0.96	0.96	1.06
<u>Total live births</u>					
White	1.00	1.27	0.96	0.90	1.00
Under 1 day	1.00	1.19	0.94	0.94	1.06
1-6 days	1.00	1.22	0.95	0.88	1.07
7-27 days	1.00	1.19	1.00	0.88	1.00
28 days-11 months ..	1.00	1.45	1.04	0.87	0.85
All other	1.00	1.20	0.97	0.90	0.96
Under 1 day	1.00	1.13	0.95	0.92	1.00
1-6 days	1.00	1.15	0.94	0.89	1.04
7-27 days	1.00	1.26	0.95	0.85	0.95
28 days-11 months ..	1.00	1.27	1.01	0.89	0.88

¹ Under 15 years omitted; too few cases.

Among all live births, the ratio of the rate for infants other than white to that for white infants was 1.6:1 during the neonatal period and 2.8:1 during the postneonatal period. Among illegitimate births, the differentials were somewhat less, 1.2:1 and 2.6:1, respectively.

Table E. Infant mortality rates for illegitimate births and total live births, by color and age at death of infant and age of mother: United States, 1960 live-birth cohort

Color and age at death of infant	All ages	Age of mother ¹			
		15-19 years	20-24 years	25-29 years	30 years and over
<u>Illegitimate births²</u>					
White		Rate per 1,000 live births			
Under 28 days	33.0	33.0	30.3	32.7	39.0
Under 7 days	25.4	24.6	24.2	23.9	31.5
Under 1 day	22.7	22.0	21.8	20.6	28.5
1-6 days	14.1	13.8	13.2	14.7	16.2
7-27 days	8.6	8.3	8.6	6.0	12.3
	2.7	2.6	2.4	3.3	3.0
28 days-11 months	7.6	8.3	6.0	8.8	7.5
All other	51.2	52.7	48.5	48.9	52.0
Under 28 days		Rate per 1,000 live births			
Under 7 days	31.4	32.4	29.5	29.8	31.1
Under 1 day	26.2	26.9	24.2	25.1	26.8
1-6 days	16.0	16.4	14.8	15.9	15.7
7-27 days	10.3	10.5	9.4	9.2	11.1
	5.1	5.4	5.3	4.7	4.3
28 days-11 months	19.8	20.3	19.0	19.1	20.9
<u>Total live births</u>					
White		Rate per 1,000 live births			
Under 28 days	22.2	28.1	21.4	20.0	22.3
Under 7 days	16.9	20.4	15.9	15.3	17.9
Under 1 day	15.3	18.4	14.3	13.9	16.3
1-6 days	9.4	11.2	8.8	8.8	10.0
7-27 days	5.9	7.2	5.6	5.2	6.3
	1.6	1.9	1.6	1.4	1.6
28 days-11 months	5.3	7.7	5.5	4.6	4.5
All other	41.4	49.5	40.2	37.3	39.8
Under 28 days		Rate per 1,000 live births			
Under 7 days	26.7	30.9	25.3	24.2	26.9
Under 1 day	22.9	26.1	21.6	20.9	23.2
1-6 days	14.4	16.3	13.7	13.3	14.4
7-27 days	8.5	9.8	8.0	7.6	8.8
	3.9	4.9	3.7	3.3	3.7
28 days-11 months	14.7	18.6	14.8	13.1	12.9

¹ Under 15 years omitted; too few cases.

² 35 reporting areas.

The risk of death among illegitimate births as compared with all live births was greater among white than among all other infants. For the most

part, ratios among white infants exceeded those among all other infants within each category, as illustrated in the following table.

Color and age at death of infant	All ages	Age of mother ¹			
		15-19 years	20-24 years	25-29 years	30 years and over
Ratio of mortality rates for illegitimate births to rates for all live births					
White	1.49	1.17	1.42	1.64	1.75
Under 1 day	1.50	1.23	1.50	1.67	1.62
1-6 days	1.46	1.15	1.54	1.15	1.95
7-27 days	1.69	1.37	1.50	2.36	1.88
28 days-11 months	1.43	1.08	1.09	1.91	1.67
All other	1.24	1.06	1.21	1.31	1.31
Under 1 day	1.11	1.01	1.08	1.20	1.09
1-6 days	1.21	1.07	1.18	1.21	1.26
7-27 days	1.31	1.10	1.43	1.42	1.16
28 days-11 months	1.35	1.09	1.28	1.46	1.62

¹ Under 15 years omitted; too few cases.

MORTALITY BASED ON SELECTED FAVORABLE RATES

To what extent would the overall infant mortality experience have been altered had more advantageous rates been a reality for all infants? This cohort of linked records shows the high mortality among higher order births, especially among sixth or later births, in both sex and color groups. One-sixth of all deaths were of sixth or later birth order. These—together with deaths of infants of mothers aged 15-19 years, except first order—contributed sizably to the overall infant mortality rate; 25 percent of all deaths were from these groups. The impact on the overall rate for infants other than white was more severe, since 40 percent of all deaths among them were from these two categories. Only 20 percent of white infant deaths were from the cited categories.

If all white infants had been born within birth-order/age-of-mother categories showing the most favorable rates for them, about 14,000 more would have survived the first year of life. The mortality rate per 1,000 live births would have been 18.2 rather than the actual rate of 22.2.

If, in turn, all other infants had been born within similar categories showing the most favorable rates for them, 4,900 more would have survived the first year, with a consequent rate of 35 per 1,000 live births—17 percent below the

actual rate of 41. In addition, losses would have been reduced by 13,947, about one-half the actual number, had these births occurred within the above-mentioned most favorable categories of white infants. The total of all deaths, both white and all other, would then have been 28,000 fewer. The mortality rate would have been 18 rather than 25 per 1,000 live births. It should be recognized that these estimates are based on rates which assume an ideal situation.

SUMMARY

Infant mortality data for this report were obtained from 107,038 matched death and birth certificates of infants born alive during 1960 who died before age 1. The matched records made possible analysis of infant mortality rates according to maternal age, birth order, and other characteristics reported on the certificates. Rates were computed on a per 1,000 scale by dividing the number of matched records by the number of live births in 1960.

The rates varied with age of mother in much the same way for each birth order. Each of these variables was associated with infant mortality differentials, but there was also interaction between them in the association with infant mortality. The chances of surviving the first year of life were better for infants born to mothers aged 20-34 years than for those born to mothers of other ages, and better for infants of low birth order than for infants of high birth order. The most favorable survival rates were among first births to mothers aged 20-24 and among first and second births to mothers aged 25-29.

Infant mortality rates for illegitimate births were half again as high as those for all infants in the cohort. However, ratios of mortality rates for illegitimate births to rates for all live births were higher for white infants than for all other infants.

Hypothetically, if all infants had been born within categories of maternal age and birth order having most favorable rates for white infants, an estimated 28,000 fewer deaths would have occurred. The infant mortality rate would have been 18 per 1,000 live births rather than 25.

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Table 1. Infant mortality rates, by sex and age at death of infant, age of mother, and total-birth order: United States, 1960 live-birth cohort

Sex and age at death of infant and age of mother	All birth orders	Total-birth order						
		1	2	3	4	5	6 and over	
BOTH SEXES								
<u>Under 1 year</u>								
Mothers of all ages								
Under 15 years	58.7	56.8	97.7	(1)	-	-	-	
15-19 years	32.8	26.1	42.7	54.7	63.4	96.9	140.0	
20-24 years	24.2	17.2	21.8	27.3	35.1	45.2	58.7	
25-29 years	22.4	17.5	17.3	18.9	22.4	28.5	39.7	
30-34 years	23.7	24.1	19.3	18.2	20.2	23.6	33.5	
35-39 years	25.5	27.7	22.8	21.0	20.9	22.0	32.0	
40-44 years	30.6	33.4	31.2	26.8	24.1	25.0	35.3	
45 years and over	41.1	² 50.5	² 14.3	² 27.0	34.8	44.6	44.9	
Mothers of all ages								
Under 28 days								
Mothers of all ages	18.4	16.4	17.4	17.1	18.4	20.7	25.3	
Under 15 years	41.2	40.2	² 60.2	(1)	-	-	-	
15-19 years	22.7	18.8	28.6	34.3	39.7	59.9	85.7	
20-24 years	17.3	13.6	15.8	18.7	23.1	29.4	38.4	
25-29 years	16.6	14.5	13.8	14.3	16.5	19.5	26.4	
30-34 years	18.3	21.0	16.0	14.4	15.8	18.4	24.1	
35-39 years	19.7	24.6	19.4	17.1	17.1	17.6	22.6	
40-44 years	23.1	28.3	25.2	21.9	19.2	19.4	25.3	
45 years and over	31.3	² 50.5	² 14.3	² 27.0	² 27.9	39.0	30.6	
Mothers of all ages								
Under 7 days								
Mothers of all ages	16.4	14.7	15.6	15.3	16.5	18.5	22.2	
Under 15 years	37.0	36.1	² 56.4	(1)	-	-	-	
15-19 years	20.1	16.6	25.5	29.8	35.8	54.0	85.7	
20-24 years	15.4	12.2	14.1	16.6	20.5	25.8	33.1	
25-29 years	14.9	13.2	12.4	12.9	15.0	17.3	23.1	
30-34 years	16.5	19.2	14.8	13.1	14.0	16.7	21.1	
35-39 years	17.8	22.4	18.0	15.8	15.4	16.0	20.0	
40-44 years	20.6	24.9	22.7	20.1	17.3	17.0	22.5	
45 years and over	28.0	² 40.4	² 14.3	² 22.5	² 26.1	² 35.3	27.3	
Mothers of all ages								
Under 1 day								
Mothers of all ages	10.2	8.8	9.6	9.4	10.4	11.8	13.9	
Under 15 years	22.6	22.0	² 33.8	(1)	-	-	-	
15-19 years	12.3	10.0	15.6	19.2	24.0	35.5	60.0	
20-24 years	9.5	7.2	8.7	10.2	13.0	17.0	22.2	
25-29 years	9.4	8.3	7.7	7.9	9.5	11.2	14.9	
30-34 years	10.3	12.2	9.0	7.9	8.9	10.5	13.3	
35-39 years	10.9	12.5	11.4	9.9	9.1	10.1	12.1	
40-44 years	12.0	16.8	13.1	10.2	10.7	9.8	13.1	
45 years and over	12.9	² 10.1	² 3.6	² 9.0	² 10.5	² 13.0	14.6	
Mothers of all ages								
1-6 days								
Mothers of all ages	6.3	5.9	6.0	5.9	6.1	6.7	8.3	
Under 15 years	14.5	14.1	² 22.6	-	-	-	-	
15-19 years	7.8	6.6	9.9	10.6	11.8	18.5	² 25.7	
20-24 years	5.9	5.1	5.4	6.4	7.5	8.8	10.8	
25-29 years	5.5	4.9	4.7	4.9	5.5	6.2	8.2	
30-34 years	6.2	7.1	5.8	5.1	5.2	6.3	7.8	
35-39 years	6.9	9.9	6.6	5.9	6.2	5.9	7.9	
40-44 years	8.6	8.0	9.6	9.9	6.6	7.2	9.4	
45 years and over	15.1	² 30.3	² 10.7	² 13.5	² 15.7	22.3	12.6	

See footnotes at end of table.

Table 1. Infant mortality rates, by sex and age at death of infant, age of mother, and total-birth order: United States, 1960 live-birth cohort—Con.

Sex and age at death of infant and age of mother	All birth orders	Total-birth order						
		1	2	3	4	5	6 and over	
BOTH SEXES—Con.								
. 7-27 days								
Mothers of all ages	1.9	1.7	1.8	1.8	1.9	2.2	3.0	
Under 15 years	4.1	4.1	3.8	-	-	-	-	
15-19 years	2.6	2.2	3.1	4.5	3.9	5.9	-	
20-24 years	1.9	1.3	1.7	2.1	2.6	3.7	5.3	
25-29 years	1.7	1.3	1.3	1.5	1.5	2.2	3.3	
30-34 years	1.8	1.7	1.2	1.3	1.8	1.7	2.9	
35-39 years	1.9	2.2	1.4	1.3	1.8	1.6	2.6	
40-44 years	2.5	3.5	2.6	1.8	1.9	2.3	2.9	
45 years and over	3.3	10.1	-	4.5	1.7	3.7	3.3	
28 days-11 months								
Mothers of all ages	6.7	5.0	6.2	6.6	7.0	8.2	11.1	
Under 15 years	17.6	16.6	37.6	(1)	-	-	-	
15-19 years	10.1	7.3	14.2	20.5	23.7	37.0	54.3	
20-24 years	6.9	3.7	6.0	8.6	12.0	15.8	20.3	
25-29 years	5.8	3.0	3.5	4.6	5.9	9.0	13.3	
30-34 years	5.3	3.1	3.3	3.8	4.3	5.2	9.5	
35-39 years	5.8	3.1	3.3	3.9	3.8	4.4	9.4	
40-44 years	7.5	5.1	6.0	4.9	4.9	5.7	10.0	
45 years and over	9.8	-	-	-	7.0	5.6	14.3	
MALE								
Under 1 year								
Mothers of all ages	28.3	24.2	26.6	26.8	28.3	32.2	40.6	
Under 15 years	67.0	65.9	102.7	(1)	-	-	-	
15-19 years	37.0	29.5	48.2	61.1	69.3	120.2	135.3	
20-24 years	27.4	19.5	24.6	31.0	39.7	52.0	67.7	
25-29 years	25.2	20.0	19.5	21.5	25.2	32.3	43.9	
30-34 years	26.5	27.3	21.9	21.1	22.2	25.7	37.2	
35-39 years	28.2	32.1	24.7	23.2	23.0	23.6	35.7	
40-44 years	33.8	41.3	34.1	28.6	26.0	26.1	39.4	
45 years and over	43.5	58.8	8.1	25.0	44.1	27.0	51.1	
Under 28 days								
Mothers of all ages	20.8	18.6	19.8	19.6	20.6	23.0	28.5	
Under 15 years	47.9	47.7	61.6	(1)	-	-	-	
15-19 years	25.8	21.4	32.7	38.1	44.2	77.2	100.0	
20-24 years	19.7	15.4	17.9	21.5	26.1	33.5	44.7	
25-29 years	18.8	16.3	15.8	16.4	18.7	22.1	29.5	
30-34 years	20.6	23.7	18.2	16.9	17.5	20.0	27.0	
35-39 years	22.0	28.2	21.2	19.0	18.8	19.3	25.8	
40-44 years	26.1	34.9	27.9	24.7	20.6	20.8	29.2	
45 years and over	32.4	58.8	8.1	25.0	33.1	23.6	34.5	
Under 7 days								
Mothers of all ages	18.7	16.8	17.8	17.6	18.4	20.6	25.3	
Under 15 years	42.9	42.7	54.8	(1)	-	-	-	
15-19 years	23.1	19.1	29.3	33.6	39.4	72.7	100.0	
20-24 years	17.6	13.9	16.0	19.2	23.2	29.5	38.6	
25-29 years	16.9	14.9	14.3	14.7	16.9	19.6	26.1	
30-34 years	18.6	21.8	16.8	15.3	15.6	18.1	23.7	
35-39 years	19.9	25.8	19.6	17.5	16.8	17.9	22.9	
40-44 years	23.5	29.5	26.1	23.1	18.5	18.2	26.2	
45 years and over	30.5	58.8	8.1	25.0	33.1	20.3	31.9	

See footnotes at end of table.

Table 1. Infant mortality rates, by sex and age at death of infant, age of mother, and total-birth order: United States, 1960 live-birth cohort—Con.

Sex and age at death of infant and age of mother	All birth orders	Total-birth order						
		1	2	3	4	5	6 and over	
MALE—Con.								
<u>Under 1 day</u>								
Mothers of all ages	11.4	9.9	10.8	10.8	11.5	13.1	15.7	
Under 15 years	24.9	25.1	² 27.4	(¹)	-	-	-	
15-19 years	14.0	11.4	17.7	22.0	26.5	49.0	² 76.5	
20-24 years	10.7	8.0	9.7	12.0	14.4	19.6	26.7	
25-29 years	10.6	9.4	8.7	8.9	10.8	12.6	16.5	
30-34 years	11.4	13.5	10.0	9.0	9.8	11.3	14.9	
35-39 years	11.9	13.8	12.3	10.8	9.7	11.1	13.5	
40-44 years	13.5	21.5	14.8	11.7	10.9	10.0	15.0	
45 years and over	14.1	² 19.6	-	² 12.5	² 11.0	² 6.8	17.3	
<u>1-6 days</u>								
Mothers of all ages	7.3	6.8	7.0	6.8	7.0	7.5	9.6	
Under 15 years	18.0	17.6	² 27.4	-	-	-	-	
15-19 years	9.1	7.7	11.6	11.6	13.0	² 23.7	² 23.5	
20-24 years	6.8	5.9	6.3	7.2	8.8	9.9	12.0	
25-29 years	6.4	5.5	5.6	5.8	6.2	7.0	9.5	
30-34 years	7.1	8.3	6.9	6.4	5.8	6.8	8.8	
35-39 years	8.0	12.0	7.4	6.7	7.1	6.9	9.4	
40-44 years	10.0	² 8.0	11.3	11.4	7.6	8.3	11.1	
45 years and over	16.4	² 39.2	² 8.1	² 12.5	² 22.1	² 13.5	14.6	
<u>7-27 days</u>								
Mothers of all ages	2.1	1.9	2.0	2.0	2.2	2.4	3.2	
Under 15 years	24.9	² 5.0	² 6.8	-	-	-	-	
15-19 years	2.7	2.3	3.3	4.6	² 4.8	² 4.5	-	
20-24 years	2.1	1.5	1.9	2.3	2.9	4.0	6.1	
25-29 years	1.9	1.4	1.5	1.7	1.8	2.5	3.4	
30-34 years	2.0	1.9	1.3	1.6	2.0	1.9	3.2	
35-39 years	2.1	2.4	1.6	1.6	2.0	1.4	2.6	
40-44 years	2.6	5.4	² 1.8	² 1.6	² 2.1	² 2.6	3.0	
45 years and over	² 1.9	-	-	-	-	² 3.4	² 2.7	
<u>28 days-11 months</u>								
Mothers of all ages	7.4	5.6	6.8	7.2	7.7	9.2	12.1	
Under 15 years	19.1	18.3	² 41.1	(¹)	-	-	-	
15-19 years	11.1	8.1	15.6	23.0	25.1	43.0	² 35.3	
20-24 years	7.7	4.0	6.6	9.5	13.7	18.5	23.0	
25-29 years	6.4	3.7	3.7	5.1	6.5	10.2	14.5	
30-34 years	5.8	3.7	3.7	4.2	4.7	5.7	10.3	
35-39 years	6.2	3.9	3.4	4.2	4.2	4.3	10.2	
40-44 years	7.7	² 6.4	6.2	3.9	5.3	5.3	10.3	
45 years and over	11.1	-	-	-	² 11.0	² 3.4	16.6	
FEMALE								
<u>Under 1 year</u>								
Mothers of all ages	21.8	18.3	20.4	20.3	22.2	25.5	32.1	
Under 15 years	50.1	47.4	² 91.7	-	-	-	-	
15-19 years	28.4	22.5	37.0	47.9	57.3	73.7	144.4	
20-24 years	20.8	14.9	18.9	23.5	30.3	38.2	49.2	
25-29 years	19.4	14.8	14.8	16.3	19.5	24.6	35.3	
30-34 years	20.7	20.7	16.5	15.1	18.0	21.5	29.7	
35-39 years	22.8	23.2	20.8	18.8	18.8	20.4	28.2	
40-44 years	27.3	25.6	28.2	25.0	22.2	23.9	30.9	
45 years and over	38.6	(¹)	² 19.2	² 29.4	² 26.5	² 66.1	38.6	

See footnotes at end of table.

Table 1. Infant mortality rates, by sex and age at death of infant, age of mother, and total-birth order: United States, 1960 live-birth cohort—Con.

Sex and age at death of infant and age of mother	All birth orders	Total-birth order						
		1	2	3	4	5	6 and over	
FEMALE—Con.								
<u>Under 28 days</u>								
Mothers of all ages		Rate per 1,000 live births						
Under 15 years	15.8	14.0	14.9	14.5	16.1	18.2	21.9	
15-19 years	34.2	32.4	² 58.3	-	-	-	-	
20-24 years	19.4	16.0	24.3	30.1	35.0	42.8	² 72.2	
25-29 years	14.7	11.6	13.6	15.7	20.0	25.3	31.7	
30-34 years	14.2	12.5	11.6	12.2	14.3	16.9	23.2	
35-39 years	15.9	18.1	13.8	11.7	14.0	16.8	21.1	
40-44 years	17.4	20.9	17.6	15.1	15.4	15.8	19.5	
45 years and over	20.0	21.8	22.5	19.1	17.6	17.9	21.3	
	30.1	(¹)	² 19.2	² 29.4	² 23.2	² 57.9	26.6	
<u>Under 7 days</u>								
Mothers of all ages	14.1	12.4	13.3	12.9	14.4	16.2	19.1	
Under 15 years	30.9	29.3	² 58.3	-	-	-	-	
15-19 years	17.0	14.0	21.5	25.7	32.0	35.4	² 72.2	
20-24 years	13.1	10.5	12.1	13.9	17.6	21.9	27.7	
25-29 years	12.7	11.4	10.5	11.0	13.0	15.0	20.1	
30-34 years	14.3	16.6	12.7	10.7	12.4	15.3	18.4	
35-39 years	15.5	18.9	16.3	14.1	13.9	14.0	17.0	
40-44 years	17.7	20.2	19.1	17.0	16.0	15.8	18.6	
45 years and over	25.4	(¹)	² 19.2	² 19.6	² 19.9	² 53.7	22.6	
<u>Under 1 day</u>								
Mothers of all ages	8.8	7.6	8.4	8.0	9.2	10.4	12.1	
Under 15 years	20.1	18.8	² 41.7	-	-	-	-	
15-19 years	10.6	8.5	13.5	16.2	21.4	² 22.1	² 44.4	
20-24 years	8.2	6.3	7.7	8.4	11.5	14.3	17.5	
25-29 years	8.2	7.2	6.7	6.9	8.2	9.7	13.1	
30-34 years	9.1	10.8	8.1	6.8	7.9	9.6	11.7	
35-39 years	9.7	11.2	10.5	8.9	8.6	9.1	10.7	
40-44 years	10.5	12.2	11.2	8.7	10.4	9.6	11.1	
45 years and over	11.7	-	² 6.4	² 4.9	² 9.9	² 20.7	² 12.0	
<u>1-6 days</u>								
Mothers of all ages	5.2	4.8	4.9	4.9	5.2	5.8	7.0	
Under 15 years	10.8	10.5	² 16.7	-	-	-	-	
15-19 years	6.4	5.4	8.0	9.5	10.6	² 13.3	² 27.8	
20-24 years	4.9	4.1	4.5	5.5	6.2	7.6	9.7	
25-29 years	4.6	4.2	3.8	4.1	4.8	5.3	6.9	
30-34 years	5.2	5.8	4.6	3.9	4.5	5.7	6.7	
35-39 years	5.8	7.7	5.8	5.2	5.3	4.9	6.4	
40-44 years	7.2	² 8.0	7.9	8.3	5.7	6.2	7.5	
45 years and over	13.7	(¹)	² 12.8	² 14.7	² 9.9	² 33.1	² 10.7	
<u>7-27 days</u>								
Mothers of all ages	1.7	1.5	1.6	1.6	1.7	2.0	2.8	
Under 15 years	² 3.3	² 3.2	-	-	-	-	-	
15-19 years	2.4	2.0	2.9	4.4	² 3.0	² 7.4	-	
20-24 years	1.6	1.2	1.5	1.8	2.3	3.3	4.6	
25-29 years	1.5	1.1	1.2	1.3	1.3	1.8	3.1	
30-34 years	1.6	1.6	1.0	1.0	1.6	1.5	2.6	
35-39 years	1.8	² 2.0	1.3	1.0	1.5	1.8	2.6	
40-44 years	2.3	² 1.6	² 3.3	² 2.0	² 1.6	² 2.1	2.7	
45 years and over	² 4.7	(¹)	-	² 9.8	² 3.3	² 4.1	² 4.0	

See footnotes at end of table.

Table 1. Infant mortality rates, by sex and age at death of infant, age of mother, and total-birth order: United States, 1960 live-birth cohort—Con.

Sex and age at death of infant and age of mother	All birth orders	Total-birth order						
		1	2	3	4	5	6 and over	
FEMALE—Con.								
<u>28 days-11 months</u>								
Mothers of all ages		Rate per 1,000 live births						
Under 15 years	6.0	4.3	5.5	5.8	6.1	7.2	10.2	
15-19 years	15.9	14.9	² 33.3	-	-	-	-	
20-24 years	9.0	6.5	12.7	17.8	22.3	31.0	² 72.2	
25-29 years	6.1	3.3	5.3	7.7	10.3	13.0	17.5	
30-34 years	5.2	2.3	3.2	4.0	5.2	7.8	12.1	
35-39 years	4.8	2.5	2.8	3.4	4.0	4.7	8.6	
40-44 years	5.4	2.3	3.3	3.7	3.4	4.6	8.7	
45 years and over	7.3	² 3.7	² 5.8	5.9	4.6	6.0	9.6	
	8.6	-	-	-	² 3.3	² 8.3	² 12.0	

¹ Deaths less than 20, live births less than 100.

² Deaths less than 20, live births 100 or more.

Table 2. Infant mortality rates, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order						
		1	2	3	4	5	6 and over	
WHITE, BOTH SEXES								
Under 1 year								
Mothers of all ages	22.2	19.1	21.1	21.2	22.7	25.7	31.8	
Under 15 years	47.5	44.4	(¹)	(¹)	-	-	-	
15-19 years	28.1	23.1	37.2	47.4	51.6	96.8	130.4	
20-24 years	21.4	16.0	20.2	24.9	31.7	40.1	53.4	
25-29 years	20.0	16.2	16.2	17.7	20.8	26.2	35.2	
30-34 years	21.2	22.1	18.1	17.1	18.7	22.1	29.8	
35-39 years	22.9	25.5	21.4	19.8	19.7	20.5	28.0	
40-44 years	28.1	32.9	30.2	25.6	23.0	23.6	32.0	
45 years and over	38.9	² 51.7	² 15.9	² 25.0	² 34.8	48.3	41.1	
Under 28 days								
Mothers of all ages	16.9	15.0	16.1	15.9	17.2	19.3	23.7	
Under 15 years	32.1	29.3	(¹)	(¹)	-	-	-	
15-19 years	20.4	17.2	26.1	31.5	35.9	68.7	² 81.5	
20-24 years	15.9	12.7	15.0	17.6	22.1	28.0	37.8	
25-29 years	15.3	13.5	13.1	13.6	15.7	18.8	25.6	
30-34 years	17.0	19.4	15.2	13.7	15.0	17.7	22.5	
35-39 years	18.4	22.7	18.5	16.3	16.4	16.8	21.2	
40-44 years	22.0	28.1	25.0	21.1	18.5	18.0	24.3	
45 years and over	31.8	² 51.7	² 15.9	² 25.0	² 27.5	44.1	30.8	
Under 7 days								
Mothers of all ages	15.3	13.5	14.6	14.4	15.5	17.5	21.4	
Under 15 years	29.7	26.8	(¹)	(¹)	-	-	-	
15-19 years	18.4	15.5	24.0	28.4	33.1	63.4	² 81.5	
20-24 years	14.3	11.5	13.4	16.0	19.8	25.2	33.5	
25-29 years	13.9	12.3	11.8	12.2	14.3	17.0	23.0	
30-34 years	15.4	17.9	14.1	12.4	13.4	16.1	20.3	
35-39 years	16.8	20.7	17.1	15.1	14.8	15.3	19.3	
40-44 years	19.8	24.9	22.3	19.2	17.0	16.1	21.7	
45 years and over	29.0	² 40.2	² 15.9	² 20.0	² 25.6	² 39.9	28.6	
Under 1 day								
Mothers of all ages	9.4	8.1	8.9	8.8	9.7	11.2	13.5	
Under 15 years	19.8	18.0	(¹)	(¹)	-	-	-	
15-19 years	11.2	9.3	14.6	18.4	21.5	44.0	² 70.7	
20-24 years	8.8	6.7	8.3	9.8	12.4	16.7	24.3	
25-29 years	8.8	7.6	7.3	7.6	9.1	11.1	14.7	
30-34 years	9.6	11.1	8.5	7.4	8.4	10.0	12.9	
35-39 years	10.3	11.7	11.0	9.4	8.7	9.8	11.7	
40-44 years	11.7	16.6	13.3	9.7	10.4	9.2	13.1	
45 years and over	13.3	² 11.5	² 4.0	² 7.5	² 11.0	² 14.7	15.2	
1-6 days								
Mothers of all ages	5.9	5.5	5.6	5.6	5.8	6.3	7.9	
Under 15 years	9.9	8.8	(¹)	-	-	-	-	
15-19 years	7.2	6.2	9.4	10.0	11.7	² 19.4	² 10.9	
20-24 years	5.6	4.8	5.2	6.2	7.5	8.5	9.2	
25-29 years	5.2	4.7	4.5	4.7	5.2	5.9	8.3	
30-34 years	5.9	6.8	5.6	5.0	5.0	6.1	7.4	
35-39 years	6.5	9.0	6.1	5.8	6.1	5.5	7.5	
40-44 years	8.0	8.3	9.0	9.6	6.5	6.9	8.5	
45 years and over	15.7	² 28.7	² 11.9	² 12.5	² 14.7	² 25.2	13.4	

See footnotes at end of table.

Table 2. Infant mortality rates, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order						
		1	2	3	4	5	6 and over	
<u>WHITE, BOTH SEXES—Con.</u>								
<u>7-27 days</u>								
Mothers of all ages		1.6	1.4	1.5	1.5	1.7	1.8	
Under 15 years		² 2.4	² 2.5	-	-	-	-	
15-19 years		1.9	1.8	2.1	3.2	² 2.7	² 5.3	
20-24 years		1.6	1.2	1.5	1.7	2.3	2.8	
25-29 years		1.4	1.2	1.3	1.3	1.3	1.8	
30-34 years		1.6	1.5	1.1	1.3	1.6	1.6	
35-39 years		1.6	2.0	1.4	1.2	1.6	1.5	
40-44 years		2.3	² 3.3	² 2.7	² 1.9	² 1.8	1.9	
45 years and over		² 2.8	² 11.5	-	² 5.0	² 1.8	² 4.2	
<u>28 days-11 months</u>								
Mothers of all ages		5.3	4.1	5.1	5.4	5.5	6.4	
Under 15 years		15.5	15.1	(¹)	-	-	-	
15-19 years		7.7	5.8	11.1	15.9	15.8	² 28.2	
20-24 years		5.5	3.2	5.2	7.2	9.5	12.1	
25-29 years		4.6	2.7	3.1	4.1	5.1	7.4	
30-34 years		4.2	2.7	2.9	3.4	3.7	4.4	
35-39 years		4.5	2.8	2.9	3.5	3.4	3.8	
40-44 years		6.1	² 4.7	5.2	4.6	4.4	5.6	
45 years and over		7.1	-	-	-	² 7.3	² 4.2	
<u>WHITE, MALE</u>								
<u>Under 1 year</u>								
Mothers of all ages		25.1	21.8	23.8	24.1	25.6	28.8	
Under 15 years		47.7	46.0	(¹)	(¹)	-	-	
15-19 years		31.8	26.3	41.9	53.0	57.2	150.0	
20-24 years		24.5	18.3	22.8	28.3	36.4	46.0	
25-29 years		22.6	18.6	18.4	20.0	23.6	29.8	
30-34 years		24.0	25.4	20.5	19.8	20.9	24.2	
35-39 years		25.3	30.0	23.7	21.8	21.5	22.2	
40-44 years		30.8	41.6	31.8	27.7	25.0	26.3	
45 years and over		40.0	(¹)	² 8.6	² 23.1	² 43.3	² 26.7	
<u>Under 28 days</u>								
Mothers of all ages		19.2	17.2	18.3	18.1	19.4	21.6	
Under 15 years		32.8	30.9	(¹)	(¹)	-	-	
15-19 years		23.3	19.8	29.7	35.1	40.8	107.1	
20-24 years		18.2	14.8	17.0	20.3	25.3	31.9	
25-29 years		17.5	16.2	15.0	15.4	17.8	21.1	
30-34 years		19.3	22.2	17.2	16.0	16.8	19.4	
35-39 years		20.6	26.5	20.7	18.0	17.8	18.6	
40-44 years		24.8	35.8	26.4	24.3	20.4	20.2	
45 years and over		32.0	(¹)	² 8.6	² 23.1	² 31.5	² 26.7	
<u>Under 7 days</u>								
Mothers of all ages		17.4	15.6	16.6	16.4	17.4	19.6	
Under 15 years		30.6	28.5	(¹)	(¹)	-	-	
15-19 years		21.2	17.9	27.4	31.4	36.0	100.0	
20-24 years		16.4	13.4	15.3	18.4	22.6	28.7	
25-29 years		15.9	13.9	13.6	13.9	16.2	19.2	
30-34 years		17.5	20.6	16.0	14.5	15.0	17.7	
35-39 years		18.8	24.1	19.2	16.6	16.0	17.2	
40-44 years		22.3	30.5	24.5	22.6	18.4	17.9	
45 years and over		30.6	(¹)	² 8.6	² 23.1	² 31.5	² 22.9	

See footnotes at end of table.

Table 2. Infant mortality rates, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order						
		1	2	3	4	5	6 and over	
<u>WHITE, MALE—Con.</u>								
<u>Under 1 day</u>								
Mothers of all ages	10.6	9.2	10.0	10.0	10.7	12.5	15.3	
Under 15 years	20.1	19.0	(¹)	(¹)	-	-	-	
15-19 years	12.8	10.7	16.5	21.1	22.8	75.0	(¹)	
20-24 years	9.9	7.6	9.2	11.4	13.8	18.7	29.3	
25-29 years	9.9	8.6	8.2	8.5	10.4	12.7	16.7	
30-34 years	10.7	12.5	9.4	8.4	9.2	10.9	14.6	
35-39 years	11.4	13.1	12.3	10.2	9.0	10.7	13.3	
40-44 years	12.9	21.7	14.3	11.3	11.0	9.4	14.2	
45 years and over	13.7	(¹)	-	² 9.3	² 11.8	² 7.6	² 17.1	
<u>1-6 days</u>								
Mothers of all ages	6.8	6.4	6.6	6.4	6.7	7.2	9.1	
Under 15 years	² 10.4	² 9.5	(¹)	-	-	-	-	
15-19 years	8.4	7.3	10.9	10.3	13.2	² 25.0	(¹)	
20-24 years	6.5	5.7	6.0	7.0	8.8	10.0	10.0	
25-29 years	5.9	5.3	5.4	5.4	5.7	6.5	9.4	
30-34 years	6.9	8.1	6.6	6.1	5.8	6.8	8.6	
35-39 years	7.5	11.0	6.9	6.3	7.0	6.4	8.7	
40-44 years	9.4	² 8.8	10.2	11.3	7.4	8.5	10.2	
45 years and over	16.9	(¹)	² 8.6	² 13.9	² 19.7	² 15.3	² 15.3	
<u>7-27 days</u>								
Mothers of all ages	1.8	1.6	1.7	1.7	2.0	2.0	2.6	
Under 15 years	² 2.2	² 2.4	-	-	-	-	-	
15-19 years	2.1	1.9	2.3	3.7	² 4.8	² 7.1	-	
20-24 years	1.8	1.4	1.7	1.9	2.7	3.1	5.0	
25-29 years	1.6	1.4	1.4	1.5	1.7	2.0	2.7	
30-34 years	1.8	1.6	1.2	1.5	1.8	1.7	2.7	
35-39 years	1.7	² 2.3	1.5	1.4	1.8	1.4	2.0	
40-44 years	2.5	² 5.3	² 1.9	² 1.7	² 2.0	² 2.3	2.8	
45 years and over	² 1.4	-	-	-	-	² 3.8	² 1.8	
<u>28 days-11 months</u>								
Mothers of all ages	5.9	4.6	5.6	5.9	6.2	7.1	8.7	
Under 15 years	14.9	² 15.1	(¹)	-	-	-	-	
15-19 years	8.6	6.5	12.2	17.9	16.4	² 42.9	(¹)	
20-24 years	6.2	3.6	5.8	8.1	11.1	14.2	18.1	
25-29 years	5.2	3.3	3.3	4.5	5.8	8.7	10.4	
30-34 years	4.7	3.1	3.3	3.8	4.1	4.8	7.7	
35-39 years	4.7	3.6	3.0	3.8	3.7	3.6	7.3	
40-44 years	6.0	² 5.9	² 5.4	² 3.4	4.6	5.1	7.8	
45 years and over	² 8.0	-	-	-	² 11.8	-	² 12.6	
<u>WHITE, FEMALE</u>								
<u>Under 1 year</u>								
Mothers of all ages	19.1	16.1	18.2	18.2	19.6	22.5	27.7	
Under 15 years	47.4	42.6	(¹)	-	-	-	-	
15-19 years	24.1	19.7	32.2	41.5	45.7	² 45.1	² 130.0	
20-24 years	18.2	13.5	17.4	21.2	26.7	33.9	43.7	
25-29 years	17.2	13.7	13.8	15.3	17.8	22.4	31.0	
30-34 years	18.2	18.7	15.5	14.2	16.4	19.8	25.4	
35-39 years	20.4	20.8	19.0	17.7	18.0	18.7	24.7	
40-44 years	25.4	23.9	28.5	23.4	20.9	21.9	28.9	
45 years and over	37.8	(¹)	² 22.1	² 27.2	² 27.4	² 74.8	55.4	

See footnotes at end of table.

Table 2. Infant mortality rates, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order						
		1	2	3	4	5	6 and over	
WHITE, FEMALE—Con.								
<u>Under 28 days</u>								
Mothers of all ages		14.4	12.6	13.7	13.5	14.9	17.0	
Under 15 years		31.3	27.5	(1)	-	-	-	
15-19 years		17.3	14.6	22.4	27.8	30.7	² 31.3	
20-24 years		13.4	10.6	12.9	14.9	18.8	24.0	
25-29 years		13.1	11.6	11.0	11.6	13.4	16.3	
30-34 years		14.5	16.4	13.0	11.2	13.1	15.9	
35-39 years		16.2	18.9	16.1	14.4	14.8	18.2	
40-44 years		19.2	20.3	23.6	17.7	16.6	15.9	
45 years and over		31.6	(1)	² 22.1	² 27.2	² 24.0	² 65.4	
<u>Under 7 days</u>								
Mothers of all ages		* 13.0	11.3	12.4	12.2	13.5	15.3	
Under 15 years		28.8	24.9	(1)	-	-	-	
15-19 years		15.5	12.9	20.4	25.1	30.1	² 27.8	
20-24 years		12.1	9.6	11.5	13.4	16.9	21.4	
25-29 years		11.8	10.6	9.9	10.4	12.4	14.7	
30-34 years		13.2	15.1	12.0	10.2	11.7	14.5	
35-39 years		14.7	17.2	14.9	13.6	13.5	13.2	
40-44 years		17.2	19.1	20.0	15.7	15.5	14.4	
45 years and over		27.3	(1)	² 22.1	² 16.3	² 20.5	² 60.7	
<u>Under 1 day</u>								
Mothers of all ages		8.1	6.9	7.8	7.5	8.6	9.9	
Under 15 years		19.5	² 16.9	(1)	-	-	-	
15-19 years		9.5	7.9	12.5	15.4	20.1	² 13.9	
20-24 years		7.5	5.8	7.2	8.1	10.9	14.5	
25-29 years		7.5	6.6	6.3	6.5	7.8	9.4	
30-34 years		8.4	9.7	7.7	6.3	7.4	9.1	
35-39 years		9.2	10.2	9.7	8.5	8.3	8.7	
40-44 years		10.5	² 11.4	12.1	7.9	9.9	9.1	
45 years and over		12.9	-	² 7.4	² 5.4	² 10.3	² 23.4	
<u>1-6 days</u>								
Mothers of all ages		4.9	4.4	4.6	4.7	5.0	5.5	
Under 15 years		² 9.3	² 8.0	(1)	-	-	-	
15-19 years		6.0	5.0	7.8	9.7	² 10.0	² 13.9	
20-24 years		4.6	3.8	4.3	5.3	6.0	6.9	
25-29 years		4.4	4.0	3.6	3.9	4.7	5.2	
30-34 years		4.8	5.4	4.4	3.9	4.2	5.4	
35-39 years		5.5	7.0	5.3	5.1	5.2	4.5	
40-44 years		6.6	² 7.8	7.9	7.8	5.6	5.3	
45 years and over		14.4	(1)	² 14.7	² 10.9	² 10.3	² 37.4	
<u>7-27 days</u>								
Mothers of all ages		1.4	1.3	1.3	1.3	1.4	1.6	
Under 15 years		² 2.5	² 2.7	-	-	-	-	
15-19 years		1.8	1.7	2.0	2.7	² 0.6	² 3.5	
20-24 years		1.4	1.0	1.3	1.5	1.9	2.5	
25-29 years		1.2	1.0	1.1	1.2	1.0	1.6	
30-34 years		1.3	1.3	1.0	1.0	1.4	1.3	
35-39 years		1.4	² 1.7	² 1.2	0.9	1.3	1.6	
40-44 years		2.0	² 1.2	² 3.6	² 2.0	² 1.2	² 1.5	
45 years and over		² 4.3	(1)	-	² 10.9	² 3.4	² 4.7	

See footnotes at end of table.

Table 2. Infant mortality rates, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order						
		1	2	3	4	5	6 and over	
<u>WHITE, FEMALE—Con.</u>								
<u>28 days-11 months</u>								
Mothers of all ages	4.7	3.5	4.5	4.8	4.7	5.5	7.4	
Under 15 years	² 16.1	² 15.1	(¹)	-	-	-	-	
15-19 years	6.8	5.1	9.9	13.7	15.1	² 13.9	² 70.0	
20-24 years	4.8	2.9	4.5	6.3	7.9	9.9	12.9	
25-29 years	4.1	2.1	2.9	3.7	4.4	6.1	8.7	
30-34 years	3.7	2.3	2.5	3.0	3.3	3.9	6.5	
35-39 years	4.2	² 1.9	2.9	3.3	3.1	3.9	6.5	
40-44 years	6.2	² 3.6	² 4.9	5.8	4.2	6.0	7.7	
45 years and over	² 6.2	-	-	-	² 3.4	² 9.3	² 8.0	
<u>ALL OTHER, BOTH SEXES</u>								
<u>Under 1 year</u>								
Mothers of all ages	41.4	36.4	41.3	40.4	40.4	42.3	46.1	
Under 15 years	65.3	64.2	² 87.4	(¹)	-	-	-	
15-19 years	49.5	39.3	58.4	66.7	74.8	96.9	150.8	
20-24 years	40.2	29.5	34.6	39.3	44.8	53.9	63.8	
25-29 years	37.3	30.4	30.0	31.5	33.4	37.3	46.7	
30-34 years	38.4	42.2	32.3	31.7	34.7	33.8	42.0	
35-39 years	41.2	48.0	38.0	36.8	34.0	35.3	43.2	
40-44 years	44.7	² 38.5	44.3	42.9	37.8	40.0	46.1	
45 years and over	50.5	(¹)	56.0					
<u>Under 28 days</u>								
Mothers of all ages	26.7	25.5	27.0	25.7	25.3	26.2	28.5	
Under 15 years	46.5	46.7	² 48.5	-	-	-	-	
15-19 years	30.9	25.6	35.5	38.7	43.4	53.6	² 90.4	
20-24 years	25.3	21.8	22.6	23.8	26.9	31.9	39.0	
25-29 years	24.2	24.6	22.4	22.3	22.1	22.3	27.6	
30-34 years	26.4	35.7	25.2	23.1	24.0	23.4	27.4	
35-39 years	27.3	41.6	30.1	27.8	25.6	24.9	26.8	
40-44 years	29.4	² 30.2	² 27.4	33.8	26.5	33.1	28.8	
45 years and over	28.9	(¹)	-	(¹)	(¹)	-	29.9	
<u>Under 7 days</u>								
Mothers of all ages	22.9	22.1	23.3	21.8	21.9	22.4	24.0	
Under 15 years	41.4	41.6	² 43.7	-	-	-	-	
15-19 years	26.1	21.6	29.7	32.1	38.3	47.2	² 90.4	
20-24 years	21.6	19.2	19.5	19.8	22.3	26.8	32.6	
25-29 years	20.9	22.5	19.9	19.3	19.4	18.7	23.3	
30-34 years	22.8	31.7	23.2	21.1	20.5	20.7	23.0	
35-39 years	23.3	38.1	28.0	24.7	21.6	22.4	22.2	
40-44 years	25.5	² 24.7	² 27.4	32.5	21.4	26.3	25.2	
45 years and over	23.7	(¹)	-	(¹)	(¹)	-	² 23.4	
<u>Under 1 day</u>								
Mothers of all ages	14.4	13.6	14.6	13.8	14.3	14.2	14.8	
Under 15 years	24.2	24.3	² 24.3	-	-	-	-	
15-19 years	16.3	13.1	18.6	20.6	26.4	29.3	² 48.2	
20-24 years	13.7	11.5	12.3	12.5	14.8	17.5	20.2	
25-29 years	13.3	15.5	12.8	11.5	12.1	11.4	15.2	
30-34 years	14.7	21.8	14.4	14.5	13.9	13.7	14.3	
35-39 years	14.1	20.5	15.7	16.4	14.5	13.1	13.1	
40-44 years	13.5	² 19.2	² 10.5	² 18.2	² 13.3	² 15.6	13.1	
45 years and over	² 11.3	-	-	(¹)	-	-	² 13.0	

See footnotes at end of table.

Table 2. Infant mortality rates, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order						
		1	2	3	4	5	6 and over	
<u>ALL OTHER, BOTH SEXES—Con.</u>								
<u>1-6 days</u>								
Mothers of all ages								
Under 15 years	8.5	8.5	8.7	8.0	7.6	8.2	9.2	
15-19 years	17.2	17.3	² 19.4	-	-	-	-	
20-24 years	9.8	8.5	11.0	11.5	11.9	² 17.9	² 42.2	
25-29 years	8.0	7.6	7.2	7.3	7.7	9.3	12.4	
30-34 years	7.6	6.9	7.1	7.8	7.3	7.3	8.1	
35-39 years	8.1	9.9	8.8	6.6	6.6	7.0	8.7	
40-44 years	9.3	17.6	12.3	8.2	7.1	9.3	9.0	
45 years and over	12.0	² 5.5	² 16.9	² 14.3	² 8.2	² 10.7	12.1	
	² 12.4	(¹)	-	(¹)	(¹)	-	² 10.4	
<u>7-27 days</u>								
Mothers of all ages								
Under 15 years	3.9	3.5	3.7	3.9	3.4	3.8	4.5	
15-19 years	5.2	5.0	² 4.9	-	-	-	-	
20-24 years	4.9	4.0	5.8	6.6	² 5.0	² 6.4	-	
25-29 years	3.7	2.7	3.0	4.0	3.6	5.0	6.4	
30-34 years	3.3	2.2	2.5	3.0	2.7	3.6	4.3	
35-39 years	3.6	² 4.0	² 2.0	2.1	3.5	2.7	4.4	
40-44 years	3.9	² 3.5	² 2.1	² 3.1	3.9	² 2.5	4.5	
45 years and over	3.8	² 5.5	-	² 1.3	² 5.1	² 6.8	3.7	
	² 5.2	-	-	-	-	-	² 6.5	
<u>28 days-11 months</u>								
Mothers of all ages								
Under 15 years	14.7	10.9	14.3	14.7	15.1	16.1	17.6	
15-19 years	18.8	17.6	² 38.8	(¹)	-	-	-	
20-24 years	18.6	13.7	22.8	28.0	31.5	43.4	² 60.2	
25-29 years	14.8	7.7	12.0	15.6	18.9	22.0	24.8	
30-34 years	13.1	5.8	7.7	9.2	11.2	15.0	19.1	
35-39 years	12.0	6.5	7.1	8.5	10.7	10.4	14.6	
40-44 years	13.9	² 6.4	7.9	8.9	8.5	10.4	16.6	
45 years and over	15.4	² 8.2	² 16.9	² 9.1	² 11.2	² 6.8	17.3	
	21.6	-	-	-	-	(¹)	26.0	
<u>ALL OTHER, MALE</u>								
<u>Under 1 year</u>								
Mothers of all ages								
Under 15 years	46.0	40.2	46.5	46.0	44.1	46.9	51.1	
15-19 years	79.3	78.8	² 101.9	(¹)	-	-	-	
20-24 years	55.4	43.9	66.2	74.1	81.4	99.0	(¹)	
25-29 years	44.7	30.7	38.8	44.3	49.3	62.5	73.0	
30-34 years	41.7	34.8	33.6	37.1	36.4	41.8	51.6	
35-39 years	41.2	46.0	36.2	37.4	35.9	35.1	45.1	
40-44 years	45.7	52.1	35.0	41.5	39.8	36.1	48.5	
45 years and over	51.1	² 38.0	² 65.8	² 40.4	² 37.8	² 35.3	54.8	
	58.5	-	-	(¹)	(¹)	(¹)	63.1	
<u>Under 28 days</u>								
Mothers of all ages								
Under 15 years	29.9	28.0	30.7	29.8	27.7	28.9	31.7	
15-19 years	57.5	58.4	² 55.6	-	-	-	-	
20-24 years	35.0	29.0	41.0	43.0	47.6	55.8	(¹)	
25-29 years	28.3	22.1	25.5	27.9	28.5	36.3	45.1	
30-34 years	27.3	27.8	25.4	25.9	24.7	25.6	30.6	
35-39 years	28.3	37.5	28.3	28.3	25.1	23.8	29.2	
40-44 years	30.3	44.8	27.0	32.3	29.5	26.1	30.1	
45 years and over	34.1	² 25.3	² 48.2	² 30.3	² 23.9	² 27.5	35.8	
	² 34.3	-	-	(¹)	(¹)	-	² 35.4	

See footnotes at end of table.

Table 2. Infant mortality rates, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order						
		1	2	3	4	5	6 and over	
<u>ALL OTHER, MALE—Con.</u>								
<u>Under 7 days</u>								
Mothers of all ages	25.8	24.3	26.6	25.5	24.4	24.8	27.1	
Under 15 years	50.8	51.8	² 46.3	-	-	-	-	
15-19 years	29.9	24.6	34.7	37.0	42.8	53.3	(¹)	
20-24 years	24.2	19.4	22.0	23.2	24.9	30.9	37.9	
25-29 years	23.7	25.8	22.6	22.3	22.0	21.2	26.0	
30-34 years	24.7	33.4	25.8	25.7	21.7	21.2	24.8	
35-39 years	26.4	42.4	24.9	29.3	25.3	24.6	25.5	
40-44 years	30.4	² 19.0	² 48.2	² 30.3	² 19.9	² 21.6	32.2	
45 years and over	² 30.2	-	-	(¹)	(¹)	-	² 30.3	
<u>Under 1 day</u>								
Mothers of all ages	16.0	14.8	16.3	16.0	15.7	15.8	16.5	
Under 15 years	28.0	29.0	² 18.5	-	-	-	-	
15-19 years	18.3	14.8	21.2	23.3	30.1	² 30.5	(¹)	
20-24 years	15.4	11.7	13.6	15.0	16.1	21.1	24.1	
25-29 years	14.5	17.2	14.7	12.8	13.1	12.2	16.3	
30-34 years	15.9	23.0	16.2	16.3	15.2	14.4	15.6	
35-39 years	15.2	² 20.6	² 12.1	18.6	17.6	13.8	14.3	
40-44 years	17.1	² 19.0	² 21.9	² 17.7	² 10.0	² 15.7	17.9	
45 years and over	² 16.1	-	-	(¹)	-	-	² 17.7	
<u>1-6 days</u>								
Mothers of all ages	9.8	9.6	10.2	9.5	8.6	9.1	10.6	
Under 15 years	22.8	² 22.9	27.8	-	-	-	-	
15-19 years	11.6	9.8	13.6	13.7	12.7	² 22.8	(¹)	
20-24 years	8.8	7.8	8.4	8.2	8.8	9.8	13.9	
25-29 years	9.1	8.5	7.9	9.5	8.9	9.0	9.7	
30-34 years	8.8	10.4	9.7	9.4	6.5	6.7	9.3	
35-39 years	11.2	² 21.8	² 12.8	10.8	7.7	10.7	11.3	
40-44 years	13.3	-	² 26.3	² 12.6	² 10.0	² 5.9	14.3	
45 years and over	² 14.1	-	-	(¹)	-	-	² 12.6	
<u>7-27 days</u>								
Mothers of all ages	4.1	3.7	4.2	4.3	3.4	4.1	4.7	
Under 15 years	² 6.6	² 6.6	² 9.3	-	-	-	-	
15-19 years	5.1	4.4	6.3	6.0	² 4.8	² 2.5	-	
20-24 years	4.1	2.7	3.6	4.7	3.6	5.5	7.2	
25-29 years	3.6	² 2.0	2.8	3.5	2.6	4.4	4.5	
30-34 years	3.6	² 4.1	² 2.4	² 2.6	3.4	² 2.6	4.3	
35-39 years	3.9	² 2.4	² 2.0	² 2.9	² 4.2	² 1.5	4.6	
40-44 years	3.7	² 6.3	-	-	² 4.0	² 5.9	² 3.7	
45 years and over	² 4.0	-	-	-	-	-	² 5.1	
<u>28 days-11 months</u>								
Mothers of all ages	16.2	12.1	15.8	16.2	16.4	17.9	19.3	
Under 15 years	21.8	20.3	² 46.3	(¹)	-	-	-	
15-19 years	20.4	15.0	25.2	31.1	33.8	² 43.1	(¹)	
20-24 years	16.4	8.6	13.3	16.4	20.9	26.2	27.9	
25-29 years	14.4	7.0	8.2	11.2	11.7	16.2	21.0	
30-34 years	13.0	² 8.6	8.0	9.1	10.8	11.3	15.9	
35-39 years	15.3	² 7.3	² 8.1	² 9.3	10.3	10.0	18.4	
40-44 years	17.2	² 12.7	² 17.5	² 10.1	² 13.9	² 7.8	18.9	
45 years and over	² 24.2	-	-	-	-	(¹)	² 27.8	

See footnotes at end of table.

Table 2. Infant mortality rates, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order						
		1	2	3	4	5	6 and over	
ALL OTHER, FEMALE								
<u>Under 1 year</u>								
Mothers of all ages	36.7	32.6	36.0	34.6	36.6	37.7	41.1	
Under 15 years	51.6	50.0	(¹)	-	-	-	-	
15-19 years	43.4	34.5	50.2	58.6	68.3	94.9	(¹)	
20-24 years	35.5	28.2	30.3	34.3	40.2	45.4	54.4	
25-29 years	33.0	26.0	26.4	25.8	30.3	32.8	41.9	
30-34 years	35.4	38.5	28.1	25.8	33.4	32.4	38.9	
35-39 years	36.7	44.2	41.0	32.1	27.9	34.5	38.0	
40-44 years	38.4	² 38.8	² 24.4	² 45.5	² 37.7	44.6	37.4	
45 years and over	42.2	(¹)	-	(¹)	-	-	² 48.4	
<u>Under 28 days</u>								
Mothers of all ages	23.5	23.0	23.2	21.4	22.8	23.5	25.2	
Under 15 years	35.8	35.2	(¹)	-	-	-	-	
15-19 years	26.7	22.2	29.8	34.0	39.2	51.3	(¹)	
20-24 years	22.3	21.5	19.5	19.7	23.2	27.4	32.7	
25-29 years	21.1	21.5	19.3	18.6	19.6	19.0	24.6	
30-34 years	24.4	34.0	21.9	17.9	22.8	22.9	25.6	
35-39 years	24.2	38.5	33.3	23.4	21.4	23.7	23.2	
40-44 years	24.7	² 34.0	² 8.1	37.4	² 29.3	38.8	21.9	
45 years and over	² 23.2	(¹)	-	(¹)	-	-	² 24.2	
<u>Under 7 days</u>								
Mothers of all ages	19.9	19.8	19.9	18.0	19.3	20.0	20.9	
Under 15 years	32.1	31.7	(¹)	-	-	-	-	
15-19 years	22.1	18.6	24.5	26.7	33.9	² 41.0	(¹)	
20-24 years	19.0	18.9	17.1	16.3	19.7	22.8	27.2	
25-29 years	18.1	19.2	17.1	16.2	16.8	16.3	20.5	
30-34 years	20.9	30.0	20.3	16.3	19.2	20.2	21.2	
35-39 years	20.3	34.0	31.3	20.1	17.8	20.2	18.8	
40-44 years	20.7	² 29.1	² 8.1	34.8	² 23.0	² 31.0	18.2	
45 years and over	² 16.9	(¹)	-	(¹)	-	-	² 16.1	
<u>Under 1 day</u>								
Mothers of all ages	12.7	12.3	12.9	11.5	12.8	12.6	13.1	
Under 15 years	20.5	19.8	(¹)	-	-	-	-	
15-19 years	14.1	11.4	16.0	17.5	22.8	² 28.2	(¹)	
20-24 years	11.9	11.4	11.1	9.9	13.1	14.0	16.3	
25-29 years	12.1	13.8	10.8	10.2	11.1	10.7	14.0	
30-34 years	13.4	20.6	12.5	12.7	12.5	12.9	13.1	
35-39 years	12.9	² 20.4	19.4	14.4	11.3	12.4	11.9	
40-44 years	10.0	² 19.4	-	18.7	² 16.7	² 15.5	8.3	
45 years and over	² 6.3	-	-	-	-	-	² 8.1	
<u>1-6 days</u>								
Mothers of all ages	7.2	7.4	7.1	6.4	6.5	7.4	7.7	
Under 15 years	11.6	11.9	(¹)	-	-	-	-	
15-19 years	8.0	7.2	8.4	9.1	11.1	² 12.8	(¹)	
20-24 years	7.1	7.5	6.0	6.4	6.5	8.8	10.9	
25-29 years	6.0	5.3	6.2	6.0	5.6	5.5	6.5	
30-34 years	7.5	9.4	7.8	² 3.6	6.7	7.4	8.1	
35-39 years	7.3	² 13.6	² 11.8	² 5.7	² 6.5	7.8	6.9	
40-44 years	10.7	² 9.7	² 8.1	² 16.0	² 6.3	² 15.5	9.9	
45 years and over	² 10.5	(¹)	-	(¹)	-	-	² 8.1	

See footnotes at end of table.

Table 2. Infant mortality rates, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order						
		1	2	3	4	5	6 and over	
<u>ALL OTHER, FEMALE—Con.</u>								
<u>7-27 days</u>								
Mothers of all ages	3.6	3.2	3.3	3.5	3.5	3.5	4.4	
Under 15 years	² 3.7	² 3.5	-	-	-	-	-	
15-19 years	4.6	3.6	5.4	7.3	² 5.3	² 10.3	-	
20-24 years	3.3	2.6	2.5	3.4	3.6	4.6	5.5	
25-29 years	3.0	² 2.3	2.2	2.3	2.8	2.7	4.1	
30-34 years	3.5	² 4.0	² 1.6	² 1.5	3.6	² 2.7	4.4	
35-39 years	4.0	² 4.5	² 2.1	² 3.3	² 3.6	² 3.5	4.4	
40-44 years	4.0	² 4.9	-	² 2.7	² 6.3	² 7.8	² 3.6	
45 years and over	² 6.3	-	-	-	-	-	² 8.1	
<u>28 days-11 months</u>								
Mothers of all ages	13.2	9.6	12.9	13.2	13.9	14.2	15.8	
Under 15 years	15.8	14.9	(¹)	-	-	-	-	
15-19 years	16.7	12.3	20.4	24.6	29.1	² 43.6	(¹)	
20-24 years	13.2	6.7	10.8	14.6	16.9	18.0	21.7	
25-29 years	11.8	4.5	7.2	7.2	10.7	13.8	17.3	
30-34 years	11.0	² 4.5	6.2	8.0	10.6	9.5	13.3	
35-39 years	12.5	² 5.7	² 7.6	² 8.6	² 6.5	10.9	14.8	
40-44 years	13.7	² 4.9	² 16.3	² 8.0	² 8.4	² 5.8	15.6	
45 years and over	² 19.0	-	-	-	-	-	² 24.2	

¹ Deaths less than 20, live births less than 100.

² Deaths less than 20, live births 100 or more.

Table 3. Number of infant deaths, by sex and age at death of infant, age of mother, and total-birth order: United States, 1960 live-birth cohort

Sex and age at death of infant and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
BOTH SEXES									
<u>Under 1 year</u>									
Mothers of all ages	107,038	22,346	23,122	18,534	13,224	9,051	17,708	3,053	
Under 15 years	398	362	26	2	-	-	-	8	
15-19 years	19,240	10,140	6,057	1,976	473	131	49	414	
20-24 years	34,472	7,799	10,005	7,524	4,370	2,252	1,622	900	
25-29 years	24,443	2,316	4,209	4,996	4,171	3,085	4,882	784	
30-34 years	16,275	1,106	1,817	2,532	2,592	2,156	5,502	570	
35-39 years	9,194	488	796	1,196	1,286	1,112	4,026	290	
40-44 years	2,803	125	208	296	312	291	1,492	79	
45 years and over	213	10	4	12	20	24	135	8	
<u>Under 28 days</u>									
Mothers of all ages	78,330	17,140	17,061	13,401	9,598	6,474	12,289	2,367	
Under 15 years	279	256	16	1	-	-	-	6	
15-19 years	13,324	7,310	4,051	1,237	296	81	30	319	
20-24 years	24,644	6,146	7,270	5,147	2,876	1,466	1,061	678	
25-29 years	18,109	1,916	3,363	3,785	3,075	2,110	3,244	618	
30-34 years	12,601	963	1,570	2,003	2,033	1,683	3,950	455	
35-39 years	7,093	433	679	972	1,052	888	2,841	228	
40-44 years	2,118	106	168	242	248	225	1,071	58	
45 years and over	162	10	4	12	16	21	92	7	
<u>Under 7 days</u>									
Mothers of all ages	70,031	15,357	15,330	11,992	8,593	5,784	10,806	2,169	
Under 15 years	251	230	15	1	-	-	-	5	
15-19 years	11,808	6,461	3,611	1,075	267	73	30	291	
20-24 years	21,950	5,537	6,488	4,570	2,549	1,284	914	608	
25-29 years	16,257	1,749	3,034	3,394	2,791	1,875	2,843	571	
30-34 years	11,333	884	1,398	1,822	1,803	1,528	3,469	429	
35-39 years	6,397	395	629	898	944	807	2,518	206	
40-44 years	1,890	93	151	222	224	198	950	52	
45 years and over	145	8	4	10	15	19	82	7	
<u>Under 1 day</u>									
Mothers of all ages	43,317	9,228	9,450	7,381	5,408	3,689	6,773	1,388	
Under 15 years	153	140	9	1	-	-	-	3	
15-19 years	7,233	3,894	2,215	693	179	48	21	183	
20-24 years	13,519	3,246	4,001	2,813	1,614	846	614	385	
25-29 years	10,258	1,103	1,887	2,091	1,770	1,207	1,828	372	
30-34 years	7,081	559	852	1,105	1,139	957	2,189	280	
35-39 years	3,906	221	398	561	562	510	1,523	131	
40-44 years	1,100	63	87	113	138	114	554	31	
45 years and over	67	2	1	4	6	7	44	3	
<u>1-6 days</u>									
Mothers of all ages	26,714	6,129	5,880	4,611	3,185	2,095	4,033	781	
Under 15 years	98	90	6	-	-	-	-	2	
15-19 years	4,575	2,567	1,396	382	88	25	9	108	
20-24 years	8,431	2,291	2,487	1,757	935	438	300	223	
25-29 years	5,999	646	1,147	1,303	1,021	668	1,015	199	
30-34 years	4,252	325	546	717	664	571	1,280	149	
35-39 years	2,491	174	231	337	382	297	995	75	
40-44 years	790	30	64	109	86	84	396	21	
45 years and over	78	6	3	6	9	12	38	4	

Table 3. Number of infant deaths, by sex and age at death of infant, age of mother, and total-birth order: United States, 1960 live-birth cohort—Con.

Sex and age at death of infant and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
BOTH SEXES—Con.									
7-27 days									
Mothers of all ages	8,299	1,783	1,731	1,409	1,005	690	1,483	198	
Under 15 years	28	26	1	-	-	-	-	1	
15-19 years	1,516	849	440	162	29	8	-	28	
20-24 years	2,694	609	782	577	327	182	147	70	
25-29 years	1,852	167	329	391	284	235	401	45	
30-34 years	1,268	79	112	183	232	155	481	26	
35-39 years	696	38	50	74	108	81	323	22	
40-44 years	228	13	17	20	24	27	121	6	
45 years and over	17	2	-	2	1	2	10	-	
28 days-11 months									
Mothers of all ages	28,708	5,206	6,061	5,133	3,626	2,577	5,419	686	
Under 15 years	119	106	10	1	-	-	-	2	
15-19 years	5,916	2,830	2,006	739	177	50	19	95	
20-24 years	9,828	1,653	2,735	2,377	1,494	786	561	222	
25-29 years	6,334	400	846	1,211	1,096	975	1,638	168	
30-34 years	3,674	143	307	527	557	473	1,552	115	
35-39 years	2,101	55	117	224	234	224	1,185	62	
40-44 years	685	19	40	54	64	66	421	21	
45 years and over	51	-	-	-	4	3	43	1	
MALE									
Under 1 year									
Mothers of all ages	61,651	13,024	13,343	10,764	7,564	5,132	10,032	1,792	
Under 15 years	231	213	15	2	-	-	-	1	
15-19 years	11,143	5,899	3,498	1,140	262	81	23	240	
20-24 years	20,013	4,539	5,771	4,371	2,530	1,308	957	537	
25-29 years	14,099	1,362	2,447	2,906	2,403	1,772	2,737	472	
30-34 years	9,309	642	1,058	1,506	1,465	1,198	3,113	327	
35-39 years	5,167	286	438	672	721	613	2,270	167	
40-44 years	1,575	77	115	161	171	152	855	44	
45 years and over	114	6	1	6	12	8	77	4	
Under 28 days									
Mothers of all ages	45,442	10,031	9,924	7,865	5,499	3,668	7,048	1,407	
Under 15 years	165	154	9	1	-	-	-	1	
15-19 years	7,784	4,288	2,368	711	167	52	17	181	
20-24 years	14,395	3,599	4,215	3,035	1,661	842	632	411	
25-29 years	10,517	1,112	1,981	2,214	1,781	1,211	1,835	383	
30-34 years	7,251	556	879	1,208	1,156	933	2,255	264	
35-39 years	4,027	251	377	551	589	502	1,625	132	
40-44 years	1,218	65	94	139	136	121	632	31	
45 years and over	85	6	1	6	9	7	52	4	
Under 7 days									
Mothers of all ages	40,767	9,025	8,939	7,055	4,920	3,288	6,246	1,294	
Under 15 years	148	138	8	1	-	-	-	1	
15-19 years	6,959	3,825	2,127	626	149	49	17	166	
20-24 years	12,842	3,243	3,761	2,706	1,476	742	546	368	
25-29 years	9,462	1,016	1,791	1,986	1,611	1,074	1,624	360	
30-34 years	6,530	512	814	1,094	1,027	846	1,987	250	
35-39 years	3,651	230	349	506	526	465	1,457	118	
40-44 years	1,095	55	88	130	122	106	567	27	
45 years and over	80	6	1	6	9	6	48	4	

Table 3. Number of infant deaths, by sex and age at death of infant, age of mother, and total-birth order: United States, 1960 live-birth cohort—Con.

Sex and age at death of infant and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
MALE—Con.									
<u>Under 1 day</u>									
Mothers of all ages	24,928	5,344	5,411	4,328	3,062	2,090	3,881	812	
Under 15 years	86	81	4	1	-	-	-	-	
15-19 years	4,221	2,281	1,284	410	100	33	13	100	
20-24 years	7,840	1,862	2,281	1,687	915	492	377	226	
25-29 years	5,908	638	1,093	1,207	1,025	689	1,031	225	
30-34 years	4,022	317	481	641	643	529	1,248	163	
35-39 years	2,184	123	218	313	304	287	860	79	
40-44 years	630	40	50	66	72	58	326	18	
45 years and over	37	2	-	3	3	2	26	1	
<u>1-6 days</u>									
Mothers of all ages	15,839	3,681	3,528	2,727	1,858	1,198	2,365	482	
Under 15 years	62	57	4	-	-	-	-	1	
15-19 years	2,738	1,544	843	216	49	16	4	66	
20-24 years	5,002	1,381	1,480	1,019	561	250	169	142	
25-29 years	3,554	378	698	779	586	385	593	135	
30-34 years	2,508	195	333	453	384	317	739	87	
35-39 years	1,467	107	131	193	222	178	597	39	
40-44 years	465	15	38	64	50	48	241	9	
45 years and over	43	4	1	3	6	4	22	3	
<u>7-27 days</u>									
Mothers of all ages	4,675	1,006	985	810	579	380	802	113	
Under 15 years	17	16	1	-	-	-	-	-	
15-19 years	825	463	241	85	18	3	-	15	
20-24 years	1,553	356	454	329	185	100	86	43	
25-29 years	1,055	96	190	228	170	137	211	23	
30-34 years	721	44	65	114	129	87	268	14	
35-39 years	376	21	28	45	63	37	168	14	
40-44 years	123	10	6	9	14	15	65	4	
45 years and over	5	-	-	-	-	1	4	-	
<u>28 days-11 months</u>									
Mothers of all ages	16,209	2,993	3,419	2,899	2,065	1,464	2,984	385	
Under 15 years	66	59	6	1	-	-	-	-	
15-19 years	3,359	1,611	1,130	429	95	29	6	59	
20-24 years	5,618	940	1,556	1,336	869	466	325	126	
25-29 years	3,582	250	466	692	622	561	902	89	
30-34 years	2,058	86	179	298	309	265	858	63	
35-39 years	1,140	35	61	121	132	111	645	35	
40-44 years	357	12	21	22	35	31	223	13	
45 years and over	29	-	-	-	3	1	26	-	
FEMALE									
<u>Under 1 year</u>									
Mothers of all ages	45,387	9,322	9,779	7,770	5,660	3,919	7,676	1,261	
Under 15 years	167	149	11	-	-	-	-	7	
15-19 years	8,097	4,241	2,559	836	211	50	26	174	
20-24 years	14,459	3,260	4,234	3,153	1,840	944	665	363	
25-29 years	10,344	954	1,762	2,090	1,768	1,313	2,145	312	
30-34 years	6,966	464	759	1,026	1,127	958	2,389	243	
35-39 years	4,027	202	358	524	565	499	1,756	123	
40-44 years	1,228	48	93	135	141	139	637	35	
45 years and over	99	4	3	6	8	16	58	4	

Table 3. Number of infant deaths, by sex and age at death of infant, age of mother, and total-birth order: United States, 1960 live-birth cohort—Con.

Sex and age at death of infant and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
FEMALE—Con.									
<u>Under 28 days</u>									
Mothers of all ages	32,888	7,109	7,137	5,536	4,099	2,806	5,241	960	
Under 15 years	114	102	7	-	-	-	-	5	
15-19 years	5,540	3,022	1,683	526	129	29	13	138	
20-24 years	10,249	2,547	3,055	2,112	1,215	624	429	267	
25-29 years	7,592	804	1,382	1,571	1,294	899	1,409	233	
30-34 years	5,350	407	631	797	879	750	1,695	191	
35-39 years	3,066	182	302	421	463	386	1,216	96	
40-44 years	900	41	74	103	112	104	439	27	
45 years and over	77	4	3	6	7	14	40	3	
<u>Under 7 days</u>									
Mothers of all ages	29,264	6,332	6,391	4,937	3,673	2,496	4,560	875	
Under 15 years	103	92	7	-	-	-	-	4	
15-19 years	4,849	2,636	1,484	449	118	24	13	125	
20-24 years	9,108	2,294	2,727	1,864	1,073	542	368	240	
25-29 years	6,795	733	1,243	1,408	1,180	801	1,219	211	
30-34 years	4,803	372	584	728	776	682	1,482	179	
35-39 years	2,746	165	280	392	418	342	1,061	88	
40-44 years	795	38	63	92	102	92	383	25	
45 years and over	65	2	3	4	6	13	34	3	
<u>Under 1 day</u>									
Mothers of all ages	18,389	3,884	4,039	3,053	2,346	1,599	2,892	576	
Under 15 years	67	59	5	-	-	-	-	3	
15-19 years	3,012	1,613	931	283	79	15	8	83	
20-24 years	5,679	1,384	1,720	1,126	699	354	237	159	
25-29 years	4,350	465	794	884	745	518	797	147	
30-34 years	3,059	242	371	464	496	428	941	117	
35-39 years	1,722	98	180	248	258	223	663	52	
40-44 years	470	23	37	47	66	56	228	13	
45 years and over	30	-	1	1	3	5	18	2	
<u>1-6 days</u>									
Mothers of all ages	10,875	2,448	2,352	1,884	1,327	897	1,668	299	
Under 15 years	36	33	2	-	-	-	-	1	
15-19 years	1,837	1,023	553	166	39	9	5	42	
20-24 years	3,429	910	1,007	738	374	188	131	81	
25-29 years	2,445	268	449	524	435	283	422	64	
30-34 years	1,744	130	213	264	280	254	541	62	
35-39 years	1,024	67	100	144	160	119	398	36	
40-44 years	325	15	26	45	36	36	155	12	
45 years and over	35	2	2	3	3	8	16	1	
<u>7-27 days</u>									
Mothers of all ages	3,624	777	746	599	426	310	681	85	
Under 15 years	11	10	-	-	-	-	-	1	
15-19 years	691	386	199	77	11	5	-	13	
20-24 years	1,141	253	328	248	142	82	61	27	
25-29 years	797	71	139	163	114	98	190	22	
30-34 years	547	35	47	69	103	68	213	12	
35-39 years	320	17	22	29	45	44	155	8	
40-44 years	105	3	11	11	10	12	56	2	
45 years and over	12	2	-	2	1	1	6	-	

Table 3. Number of infant deaths, by sex and age at death of infant, age of mother, and total-birth order: United States, 1960 live-birth order—Con.

Sex and age at death of infant and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
<u>. FEMALE—Con.</u>									
<u>28 days-11 months</u>									
Number of infant deaths									
Mothers of all ages	12,499	2,213	2,642	2,234	1,561	1,113	2,435	301	
Under 15 years	53	47	4	-	-	-	-	2	
15-19 years	2,557	1,219	876	310	82	21	13	36	
20-24 years	4,210	713	1,179	1,041	625	320	236	96	
25-29 years	2,752	150	380	519	474	414	736	79	
30-34 years	1,616	67	128	229	248	208	694	52	
35-39 years	961	20	56	103	102	113	540	27	
40-44 years	328	7	19	32	29	35	198	8	
45 years and over	22	-	-	-	1	2	18	1	

Table 4. Number of infant deaths, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
<u>WHITE, BOTH SEXES</u>									
<u>Under 1 year</u>									
Mothers of all ages	79,819	17,376	18,209	14,515	10,055	6,500	10,475	2,689	
Under 15 years	120	106	8	1	-	-	-	5	
15-19 years	12,861	7,312	3,891	1,061	190	65	24	328	
20-24 years	26,162	6,562	8,241	5,682	2,909	1,257	728	783	
25-29 years	18,818	1,952	3,634	4,260	3,362	2,238	2,651	721	
30-34 years	12,466	918	1,559	2,194	2,187	1,748	3,339	621	
35-39 years	7,033	406	685	1,044	1,113	929	2,603	253	
40-44 years	2,195	111	187	263	275	250	1,038	71	
45 years and over	164	9	4	10	19	23	92	7	
<u>Under 28 days</u>									
Mothers of all ages	60,773	13,656	13,853	10,846	7,616	4,893	7,816	2,093	
Under 15 years	81	70	6	1	-	-	-	4	
15-19 years	9,338	5,465	2,733	706	132	39	15	248	
20-24 years	19,400	5,230	6,120	4,033	2,032	878	515	592	
25-29 years	14,457	1,621	2,935	3,265	2,538	1,604	1,927	567	
30-34 years	9,983	804	1,309	1,758	1,755	1,401	2,539	417	
35-39 years	5,661	362	591	857	922	759	1,964	206	
40-44 years	1,719	95	155	216	222	191	787	53	
45 years and over	134	9	4	10	15	21	69	6	
<u>Under 7 days¹</u>									
Mothers of all ages	55,007	12,344	12,564	9,822	6,879	4,434	7,041	1,923	
Under 15 years	75	64	6	1	-	-	-	4	
15-19 years	8,447	4,903	2,509	635	122	36	15	227	
20-24 years	17,472	4,733	5,493	3,645	1,822	789	457	533	
25-29 years	13,107	1,480	2,654	2,943	2,320	1,450	1,732	628	
30-34 years	9,069	743	1,213	1,597	1,564	1,278	2,283	391	
35-39 years	5,172	330	547	796	834	691	1,788	186	
40-44 years	1,543	84	138	197	203	171	702	48	
45 years and over	122	7	4	8	14	19	64	6	
<u>Under 1 day</u>									
Mothers of all ages	33,886	7,378	7,713	6,008	4,288	2,834	4,448	1,217	
Under 15 years	50	43	4	1	-	-	-	2	
15-19 years	5,137	2,950	1,523	411	79	25	13	136	
20-24 years	10,687	2,762	3,372	2,229	1,137	523	331	333	
25-29 years	8,248	917	1,642	1,822	1,476	947	1,104	340	
30-34 years	5,624	462	737	950	977	792	1,450	256	
35-39 years	3,168	186	352	493	488	442	1,091	116	
40-44 years	916	56	82	99	125	98	425	31	
45 years and over	56	2	1	3	6	7	34	3	
<u>1-6 days</u>									
Mothers of all ages	21,121	4,966	4,851	3,814	2,591	1,600	2,593	706	
Under 15 years	25	21	2	-	-	-	-	2	
15-19 years	3,310	1,953	986	224	43	11	2	91	
20-24 years	6,785	1,971	2,121	1,416	685	266	126	200	
25-29 years	4,859	563	1,012	1,121	844	503	628	188	
30-34 years	3,445	281	476	647	587	486	833	135	
35-39 years	2,004	144	195	303	346	249	697	70	
40-44 years	627	28	56	98	78	73	277	17	
45 years and over	66	5	3	5	8	12	30	3	

Table 4. Number of infant deaths, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
WHITE, BOTH SEXES—Con.									
7-27 days									
Mothers of all ages	5,766	1,312	1,289	1,024	737	459	775	170	
Under 15 years	6	6	-	-	-	-	-	-	
15-19 years	891	562	224	71	10	3	-	21	
20-24 years	1,928	497	627	388	210	89	58	59	
25-29 years	1,350	141	281	322	218	154	195	39	
30-34 years	914	61	96	161	191	123	256	26	
35-39 years	489	32	44	61	88	68	176	20	
40-44 years	176	11	17	19	19	20	85	5	
45 years and over	12	2	-	2	1	2	5	-	
28 days-11 months									
Mothers of all ages	19,046	3,720	4,356	3,669	2,439	1,607	2,659	596	
Under 15 years	39	36	2	-	-	-	-	1	
15-19 years	3,523	1,847	1,158	355	58	16	9	80	
20-24 years	6,762	1,332	2,121	1,649	877	379	213	191	
25-29 years	4,361	331	699	995	824	634	724	154	
30-34 years	2,483	114	250	436	432	347	800	104	
35-39 years	1,372	44	94	187	191	170	639	47	
40-44 years	476	16	32	47	53	59	251	18	
45 years and over	30	-	-	-	4	2	23	1	
WHITE, MALE									
Under 1 year									
Mothers of all ages	46,386	10,246	10,545	8,446	5,816	3,719	6,013	1,601	
Under 15 years	64	58	4	1	-	-	-	1	
15-19 years	7,509	4,295	2,248	609	108	42	11	196	
20-24 years	15,341	3,879	4,775	3,328	1,714	735	441	469	
25-29 years	10,951	1,154	2,123	2,467	1,959	1,298	1,509	441	
30-34 years	7,240	540	908	1,304	1,255	984	1,941	308	
35-39 years	3,968	243	386	587	617	519	1,473	143	
40-44 years	1,228	71	100	145	152	134	586	40	
45 years and over	85	6	1	5	11	7	52	3	
Under 28 days									
Mothers of all ages	35,537	8,092	8,076	6,363	4,400	2,796	4,549	1,261	
Under 15 years	44	39	3	1	-	-	-	1	
15-19 years	5,487	3,230	1,594	403	77	30	9	144	
20-24 years	11,435	3,123	3,560	2,379	1,190	509	313	361	
25-29 years	8,454	946	1,736	1,908	1,480	921	1,107	356	
30-34 years	5,832	473	762	1,055	1,009	788	1,496	249	
35-39 years	3,230	214	337	485	512	434	1,130	118	
40-44 years	987	61	83	127	124	107	456	29	
45 years and over	68	6	1	5	8	7	38	3	
Under 7 days									
Mothers of all ages	32,225	7,341	7,342	5,768	3,955	2,540	4,114	1,165	
Under 15 years	41	36	3	1	-	-	-	1	
15-19 years	4,997	2,927	1,471	361	68	28	9	133	
20-24 years	10,309	2,825	3,198	2,160	1,065	459	278	324	
25-29 years	7,674	862	1,573	1,722	1,342	834	1,004	337	
30-34 years	5,293	438	707	955	900	717	1,341	235	
35-39 years	2,957	195	312	446	460	401	1,037	106	
40-44 years	889	52	77	118	112	95	409	26	
45 years and over	65	6	1	5	8	6	36	3	

Table 4. Number of infant deaths, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
<u>WHITE, MALE—Con.</u>									
<u>Under 1 day</u>									
Mothers of all ages	19,637	4,323	4,429	3,522	2,439	1,615	2,583	728	
Under 15 years	27	24	2	1	-	-	-	-	
15-19 years	3,019	1,742	884	243	43	21	8	78	
20-24 years	6,228	1,611	1,933	1,333	649	299	207	186	
25-29 years	4,810	535	951	1,056	865	551	643	209	
30-34 years	3,225	266	414	553	554	441	843	154	
35-39 years	1,785	106	200	275	258	251	625	70	
40-44 years	514	37	45	59	67	50	238	18	
45 years and over	29	2	-	2	3	2	19	1	
<u>1-6 days</u>									
Mothers of all ages	12,588	3,018	2,913	2,246	1,516	925	1,531	439	
Under 15 years	14	12	1	-	-	-	-	1	
15-19 years	1,978	1,185	587	118	26	7	1	55	
20-24 years	4,081	1,214	1,265	827	416	160	71	128	
25-29 years	2,864	327	622	686	477	283	361	128	
30-34 years	2,068	172	293	402	346	276	498	81	
35-39 years	1,172	89	112	171	202	150	412	36	
40-44 years	375	15	32	59	45	45	171	8	
45 years and over	36	4	1	3	5	4	17	2	
<u>7-27 days</u>									
Mothers of all ages	3,312	751	734	596	445	256	435	96	
Under 15 years	3	3	-	-	-	-	-	-	
15-19 years	490	303	123	42	9	2	-	11	
20-24 years	1,126	298	362	219	125	50	35	37	
25-29 years	780	84	163	186	138	87	103	19	
30-34 years	539	35	55	100	109	71	155	14	
35-39 years	273	19	25	39	52	33	93	12	
40-44 years	98	9	6	8	12	12	47	3	
45 years and over	3	-	-	-	-	1	2	-	
<u>28 days-11 months</u>									
Mothers of all ages	10,849	2,154	2,469	2,083	1,416	923	1,464	340	
Under 15 years	20	19	1	-	-	-	-	-	
15-19 years	2,022	1,065	654	206	31	12	2	52	
20-24 years	3,906	756	1,215	949	524	226	128	108	
25-29 years	2,497	208	387	559	479	377	402	85	
30-34 years	1,408	67	146	249	246	196	445	59	
35-39 years	738	29	49	102	106	85	343	25	
40-44 years	241	10	17	18	28	27	130	11	
45 years and over	17	-	-	-	3	-	14	-	
<u>WHITE, FEMALE</u>									
<u>Under 1 year</u>									
Mothers of all ages	33,433	7,130	7,664	6,069	4,239	2,781	4,462	1,088	
Under 15 years	56	48	4	-	-	-	-	4	
15-19 years	5,352	3,017	1,643	452	82	13	13	132	
20-24 years	10,821	2,683	3,466	2,354	1,195	522	287	314	
25-29 years	7,867	798	1,511	1,793	1,403	940	1,142	280	
30-34 years	5,226	378	651	890	932	764	1,398	213	
35-39 years	3,065	163	299	457	496	410	1,130	110	
40-44 years	967	40	87	118	123	116	452	31	
45 years and over	79	3	3	5	8	16	40	4	

Table 4. Number of infant deaths, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
<u>WHITE, FEMALE—Con.</u>									
<u>Under 28 days</u>									
Mothers of all ages	26,236	5,564	5,777	4,483	3,216	2,097	3,267	832	
Under 15 years	37	31	3	-	-	-	-	3	
15-19 years	3,851	2,235	1,139	303	55	9	6	104	
20-24 years	7,965	2,107	2,560	1,654	842	369	202	231	
25-29 years	6,003	675	1,199	1,357	1,058	683	820	211	
30-34 years	4,151	331	547	703	746	613	1,043	168	
35-39 years	2,431	148	254	372	410	325	834	88	
40-44 years	732	34	72	89	98	84	331	24	
45 years and over	66	3	3	5	7	14	31	3	
<u>Under 7 days</u>									
Mothers of all ages	22,782	5,003	5,222	4,054	2,924	1,894	2,927	758	
Under 15 years	34	28	3	-	-	-	-	3	
15-19 years	3,450	1,976	1,038	274	54	8	6	94	
20-24 years	7,163	1,908	2,295	1,485	757	330	179	209	
25-29 years	5,433	618	1,081	1,221	978	616	728	191	
30-34 years	3,776	305	506	642	664	561	942	156	
35-39 years	2,215	135	235	350	374	290	751	80	
40-44 years	654	32	61	79	91	76	293	22	
45 years and over	57	1	3	3	6	13	28	3	
<u>Under 1 day</u>									
Mothers of all ages	14,249	3,055	3,284	2,486	1,849	1,219	1,865	491	
Under 15 years	23	19	2	-	-	-	-	2	
15-19 years	2,118	1,208	639	168	36	4	5	58	
20-24 years	4,459	1,151	1,439	896	488	224	124	137	
25-29 years	3,438	382	691	766	611	396	461	131	
30-34 years	2,399	196	323	397	423	351	607	102	
35-39 years	1,383	80	152	218	230	191	466	46	
40-44 years	402	19	37	40	58	48	187	13	
45 years and over	27	-	1	1	3	5	15	2	
<u>1-6 days</u>									
Mothers of all ages	8,533	1,948	1,938	1,568	1,075	675	1,062	267	
Under 15 years	11	9	1	-	-	-	-	1	
15-19 years	1,332	768	399	106	18	4	1	36	
20-24 years	2,704	757	856	589	269	106	55	72	
25-29 years	1,995	236	390	455	367	220	267	60	
30-34 years	1,377	109	183	245	241	210	335	54	
35-39 years	832	55	83	132	144	99	285	34	
40-44 years	252	13	24	39	33	28	106	9	
45 years and over	30	1	2	2	3	8	13	1	
<u>7-27 days</u>									
Mothers of all ages	2,454	561	555	429	292	203	340	74	
Under 15 years	3	3	-	-	-	-	-	-	
15-19 years	401	259	101	29	1	1	-	10	
20-24 years	802	199	265	169	85	39	23	22	
25-29 years	570	57	118	136	80	67	92	20	
30-34 years	375	26	41	61	82	52	101	12	
35-39 years	216	13	19	22	36	35	83	8	
40-44 years	78	2	11	10	7	8	38	2	
45 years and over	9	2	-	2	1	1	3	-	

Table 4. Number of infant deaths, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
<u>WHITE, FEMALE—Con.</u>									
<u>28 days-11 months</u>									
Mothers of all ages	8,197	1,566	1,887	1,586	1,023	684	1,195	256	
Under 15 years	19	17	1	-	-	-	-	1	
15-19 years	1,501	782	504	149	27	4	7	28	
20-24 years	2,856	576	906	700	353	153	85	83	
25-29 years	1,864	123	312	436	345	257	322	69	
30-34 years	1,075	47	104	187	186	151	355	45	
35-39 years	634	15	45	85	86	85	296	22	
40-44 years	235	6	15	29	25	32	121	7	
45 years and over	13	-	-	-	1	2	9	1	
<u>ALL OTHER, BOTH SEXES</u>									
<u>Under 1 year</u>									
Mothers of all ages	27,219	4,970	4,913	4,019	3,169	2,551	7,233	364	
Under 15 years	278	256	18	1	-	-	-	3	
15-19 years	6,379	2,828	2,166	915	283	76	25	86	
20-24 years	8,310	1,237	1,764	1,842	1,461	995	894	117	
25-29 years	5,625	364	575	736	809	847	2,231	63	
30-34 years	3,809	188	258	338	405	408	2,163	49	
35-39 years	2,161	82	111	152	173	183	1,423	37	
40-44 years	608	14	21	33	37	41	454	8	
45 years and over	49	1	-	2	1	1	43	1	
<u>Under 28 days</u>									
Mothers of all ages	17,557	3,484	3,208	2,555	1,982	1,581	4,473	274	
Under 15 years	198	186	10	-	-	-	-	2	
15-19 years	3,986	1,845	1,318	531	164	42	15	71	
20-24 years	5,244	916	1,150	1,114	844	588	546	86	
25-29 years	3,652	295	428	520	537	506	1,317	49	
30-34 years	2,618	159	201	247	280	282	1,411	38	
35-39 years	1,432	71	88	115	130	129	877	22	
40-44 years	399	11	13	26	26	34	284	5	
45 years and over	28	1	-	2	1	-	23	1	
<u>Under 7 days</u>									
Mothers of all ages	15,024	3,013	2,766	2,170	1,714	1,350	3,765	246	
Under 15 years	176	166	9	-	-	-	-	1	
15-19 years	3,361	1,558	1,102	440	145	37	15	64	
20-24 years	4,478	804	995	925	727	495	457	75	
25-29 years	3,150	269	380	451	471	425	1,111	43	
30-34 years	2,264	141	185	225	239	250	1,186	38	
35-39 years	1,225	65	82	102	110	116	730	20	
40-44 years	347	9	13	25	21	27	248	4	
45 years and over	23	1	-	2	1	-	18	1	
<u>Under 1 day</u>									
Mothers of all ages	9,431	1,850	1,737	1,373	1,120	855	2,325	171	
Under 15 years	103	97	5	-	-	-	-	1	
15-19 years	2,096	944	692	282	100	23	8	47	
20-24 years	2,832	484	629	584	477	323	283	52	
25-29 years	2,010	186	245	269	294	260	724	32	
30-34 years	1,457	97	115	155	162	165	739	24	
35-39 years	738	35	46	68	74	68	432	15	
40-44 years	184	7	5	14	13	16	129	-	
45 years and over	11	-	-	1	-	-	10	-	

Table 4. Number of infant deaths, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
<u>ALL OTHER, BOTH SEXES—Con.</u>									
<u>1-6 days</u>									
Mothers of all ages	5,593	1,163	1,029	797	594	495	1,440	75	
Under 15 years	73	69	4	-	-	-	-	-	
15-19 years	1,265	614	410	158	45	14	7	17	
20-24 years	1,646	320	366	341	250	172	174	23	
25-29 years	1,140	83	135	182	177	165	387	11	
30-34 years	807	44	70	70	77	85	447	14	
35-39 years	487	30	36	34	36	48	298	5	
40-44 years	163	2	8	11	8	11	119	4	
45 years and over	12	1	-	1	1	-	8	1	
<u>7-27 days</u>									
Mothers of all ages	2,533	471	442	385	268	231	708	28	
Under 15 years	22	20	1	-	-	-	-	1	
15-19 years	625	287	216	91	19	5	-	7	
20-24 years	766	112	155	189	117	93	89	11	
25-29 years	502	26	48	69	66	81	206	6	
30-34 years	354	18	16	22	41	32	225	-	
35-39 years	207	6	6	13	20	13	147	2	
40-44 years	52	2	-	1	5	7	36	1	
45 years and over	5	-	-	-	-	-	5	-	
<u>28 days-11 months</u>									
Mothers of all ages	9,662	1,486	1,705	1,464	1,187	970	2,760	90	
Under 15 years	80	70	8	1	-	-	-	1	
15-19 years	2,393	983	848	384	119	34	10	16	
20-24 years	3,066	321	614	728	617	407	348	31	
25-29 years	1,973	69	147	216	272	341	914	14	
30-34 years	1,191	29	57	91	125	126	.762	11	
35-39 years	729	11	23	37	43	54	546	15	
40-44 years	209	3	8	7	11	7	170	3	
45 years and over	21	-	-	-	-	1	20	-	
<u>ALL OTHER, MALE</u>									
<u>Under 1 year</u>									
Mothers of all ages	15,265	2,778	2,798	2,318	1,748	1,413	4,019	191	
Under 15 years	167	155	11	1	-	-	-	-	
15-19 years	3,634	1,604	1,250	531	154	39	12	44	
20-24 years	4,672	660	996	1,043	816	573	516	68	
25-29 years	3,148	208	324	439	444	474	1,228	31	
30-34 years	2,069	102	150	202	210	214	1,172	19	
35-39 years	1,199	43	52	85	104	94	797	24	
40-44 years	347	6	15	16	19	18	269	4	
45 years and over	29	-	-	1	1	1	25	1	
<u>Under 28 days</u>									
Mothers of all ages	9,905	1,939	1,848	1,502	1,099	872	2,499	146	
Under 15 years	121	115	6	-	-	-	-	-	
15-19 years	2,297	1,058	774	308	90	22	8	37	
20-24 years	2,960	476	655	656	471	333	319	50	
25-29 years	2,063	166	245	306	301	290	728	27	
30-34 years	1,419	83	117	153	147	145	759	16	
35-39 years	797	37	40	66	77	68	495	14	
40-44 years	231	4	11	12	12	14	176	2	
45 years and over	17	-	-	1	1	-	14	1	

Table 4. Number of infant deaths, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
<u>ALL OTHER, MALE—Con.</u>									
<u>Under 7 days</u>									
Mothers of all ages	8,542	1,684	1,597	1,287	965	748	2,132	129	
Under 15 years	107	102	5	-	-	-	-	-	
15-19 years	1,962	898	656	265	81	21	8	33	
20-24 years	2,533	418	563	546	411	283	268	44	
25-29 years	1,788	154	218	264	269	240	620	23	
30-34 years	1,237	74	107	139	127	129	646	15	
35-39 years	694	35	37	60	66	64	420	12	
40-44 years	206	3	11	12	10	11	158	1	
45 years and over	15	-	-	1	1	-	12	1	
<u>Under 1 day</u>									
Mothers of all ages	5,291	1,021	982	806	623	475	1,298	86	
Under 15 years	59	57	2	-	-	-	-	-	
15-19 years	1,202	539	400	167	57	12	5	22	
20-24 years	1,612	251	348	354	266	193	170	30	
25-29 years	1,098	103	142	151	160	138	388	16	
30-34 years	797	51	67	88	89	88	405	9	
35-39 years	399	17	18	38	46	36	235	9	
40-44 years	116	3	5	7	5	8	88	-	
45 years and over	8	-	-	1	-	-	7	-	
<u>1-6 days</u>									
Mothers of all ages	3,251	663	615	481	342	273	834	43	
Under 15 years	48	45	3	-	-	-	-	-	
15-19 years	760	359	256	98	24	9	3	11	
20-24 years	921	167	215	192	145	90	98	14	
25-29 years	690	51	76	113	109	102	232	7	
30-34 years	440	23	40	51	38	41	241	6	
35-39 years	295	18	19	22	20	28	185	3	
40-44 years	90	-	6	5	5	3	70	1	
45 years and over	7	-	-	-	1	-	5	1	
<u>7-27 days</u>									
Mothers of all ages	1,363	255	251	215	134	124	367	17	
Under 15 years	14	13	1	-	-	-	-	-	
15-19 years	335	160	118	43	9	1	-	4	
20-24 years	427	58	92	110	60	50	51	6	
25-29 years	275	12	27	42	32	50	108	4	
30-34 years	182	9	10	14	20	16	113	-	
35-39 years	103	2	3	6	11	4	75	2	
40-44 years	25	1	-	-	2	3	18	1	
45 years and over	2	-	-	-	-	-	2	-	
<u>28 days-11 months</u>									
Mothers of all ages	5,360	839	950	816	649	541	1,520	45	
Under 15 years	46	40	5	1	-	-	-	-	
15-19 years	1,337	546	476	223	64	17	4	7	
20-24 years	1,712	184	341	387	345	240	197	18	
25-29 years	1,085	42	79	133	143	184	500	4	
30-34 years	650	19	33	49	63	69	413	4	
35-39 years	402	6	12	19	27	26	302	10	
40-44 years	116	2	4	4	7	4	93	2	
45 years and over	12	-	-	-	-	1	11	-	

Table 4. Number of infant deaths, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
<u>ALL OTHER, FEMALE</u>									
<u>Under 1 year</u>									
Mothers of all ages	11,954	2,192	2,115	1,701	1,421	1,138	3,214	173	
Under 15 years	111	101	7	-	-	-	-	3	
15-19 years	2,745	1,224	916	384	129	37	13	42	
20-24 years	3,638	577	768	799	645	422	378	49	
25-29 years	2,477	156	251	297	365	373	1,003	32	
30-34 years	1,740	86	108	136	195	194	991	30	
35-39 years	962	39	59	67	69	89	626	13	
40-44 years	261	8	6	17	18	23	185	4	
45 years and over	20	1	-	1	-	-	18	-	
<u>Under 28 days</u>									
Mothers of all ages	7,652	1,545	1,360	1,053	883	709	1,974	128	
Under 15 years	77	71	4	-	-	-	-	2	
15-19 years	1,689	787	544	223	74	20	7	34	
20-24 years	2,284	440	495	458	373	255	227	36	
25-29 years	1,589	129	183	214	236	216	589	22	
30-34 years	1,199	76	84	94	133	137	652	23	
35-39 years	635	34	48	49	53	61	382	8	
40-44 years	168	7	2	14	14	20	108	3	
45 years and over	11	1	-	1	-	-	9	-	
<u>Under 7 days</u>									
Mothers of all ages	6,482	1,329	1,169	883	749	602	1,633	117	
Under 15 years	69	64	4	-	-	-	-	1	
15-19 years	1,399	660	446	175	64	16	7	31	
20-24 years	1,945	386	432	379	316	212	189	31	
25-29 years	1,362	115	162	187	202	185	491	20	
30-34 years	1,027	67	78	86	112	121	540	23	
35-39 years	531	30	45	42	44	52	310	8	
40-44 years	141	6	2	13	11	16	90	3	
45 years and over	8	1	-	1	-	-	6	-	
<u>Under 1 day</u>									
Mothers of all ages	4,140	829	755	567	497	380	1,027	85	
Under 15 years	44	40	3	-	-	-	-	1	
15-19 years	894	405	292	115	43	11	3	25	
20-24 years	1,220	233	281	230	211	130	113	22	
25-29 years	912	83	103	118	134	122	336	16	
30-34 years	660	46	48	67	73	77	334	15	
35-39 years	339	18	28	30	28	32	197	6	
40-44 years	68	4	-	7	8	8	41	-	
45 years and over	3	-	-	-	-	-	3	-	
<u>1-6 days</u>									
Mothers of all ages	2,342	500	414	316	252	222	606	32	
Under 15 years	25	24	1	-	-	-	-	-	
15-19 years	505	255	154	60	21	5	4	6	
20-24 years	725	153	151	149	105	82	76	9	
25-29 years	450	32	59	69	68	63	155	4	
30-34 years	367	21	30	19	39	44	206	8	
35-39 years	192	12	17	12	16	20	113	2	
40-44 years	73	2	2	6	3	8	49	3	
45 years and over	5	1	-	1	-	-	3	-	

Table 4. Number of infant deaths, by color, sex, and age at death of infant; age of mother; and total-birth order: United States, 1960 live-birth cohort—Con.

Color, sex, and age at death of infant; and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
<u>ALL OTHER, FEMALE—Con.</u>									
<u>7-27 days</u>									
Mothers of all ages	1,170	216	191	170	134	107	341	11	
Under 15 years	8	7	-	-	-	-	-	1	
15-19 years	290	127	98	48	10	4	-	3	
20-24 years	339	54	63	79	57	43	38	5	
25-29 years	227	14	21	27	34	31	98	2	
30-34 years	172	9	6	8	21	16	112	-	
35-39 years	104	4	3	7	9	9	72	-	
40-44 years	27	1	-	1	3	4	18	-	
45 years and over	3	-	-	-	-	-	3	-	
<u>28 days-11 months</u>									
Mothers of all ages	4,302	647	755	648	538	429	1,240	45	
Under 15 years	34	30	3	-	-	-	-	1	
15-19 years	1,056	437	372	161	55	17	6	8	
20-24 years	1,354	137	273	341	272	167	151	13	
25-29 years	888	27	68	83	129	157	414	10	
30-34 years	541	10	24	42	62	57	339	7	
35-39 years	327	5	11	18	16	28	244	5	
40-44 years	93	1	4	3	4	3	77	1	
45 years and over	9	-	-	-	-	-	9	-	

Table 5. Number of live births, by color and sex of infant, age of mother, and total-birth order: United States, 1960 live-birth cohort

Color and sex of infant and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
TOTAL									
Both sexes									
Mothers of all ages	4,257,850	1,047,562	981,404	783,102	521,512	313,342	486,290	124,638	
Under 15 years	6,780	6,374	266	16	12	-	-	112	
15-19 years	586,966	388,834	141,692	36,116	7,464	1,352	350	11,158	
20-24 years	1,426,912	452,414	459,414	275,336	124,462	49,828	27,652	37,806	
25-29 years	1,092,816	132,412	243,934	263,986	186,012	108,242	123,062	35,168	
30-34 years	687,722	45,960	94,220	139,350	128,586	91,322	164,162	24,122	
35-39 years	359,908	17,628	34,936	56,826	61,452	50,438	125,784	12,844	
40-44 years	91,564	3,742	6,662	11,028	12,950	11,622	42,272	3,288	
45 years and over	5,182	198	280	444	574	538	3,008	140	
Male									
Mothers of all ages	2,179,708	538,734	502,360	401,156	266,816	159,454	247,004	64,184	
Under 15 years	3,448	3,230	146	6	8	-	-	58	
15-19 years	301,482	199,932	72,510	18,658	3,780	674	170	5,758	
20-24 years	731,384	233,050	234,876	140,936	63,650	25,132	14,138	19,602	
25-29 years	559,088	68,138	125,234	135,410	95,282	54,890	62,300	17,834	
30-34 years	351,822	23,504	48,338	71,306	65,892	46,674	83,672	12,436	
35-39 years	183,214	8,914	17,764	28,978	31,346	25,972	63,542	6,698	
40-44 years	46,650	1,864	3,368	5,622	6,586	5,816	21,876	1,718	
45 years and over	2,620	102	124	240	272	296	1,506	80	
Female									
Mothers of all ages	2,078,142	508,828	479,044	381,946	254,696	153,888	239,286	60,454	
Under 15 years	3,332	3,144	120	10	4	-	-	54	
15-19 years	285,484	188,902	69,182	17,458	3,684	678	180	5,400	
20-24 years	695,528	219,364	224,538	134,400	60,812	24,696	13,514	18,204	
25-29 years	533,728	64,274	118,700	128,576	90,730	53,352	60,762	17,334	
30-34 years	335,900	22,456	45,882	68,044	62,694	44,648	80,490	11,686	
35-39 years	176,694	8,714	17,172	27,848	30,106	24,466	62,242	6,146	
40-44 years	44,914	1,878	3,294	5,406	6,364	5,806	20,596	1,570	
45 years and over	2,562	96	156	204	502	242	1,502	60	
WHITE									
Both sexes									
Mothers of all ages	3,600,744	911,116	862,564	683,580	443,106	253,028	329,288	118,062	
Under 15 years	2,524	2,388	60	4	6	-	-	66	
15-19 years	458,130	316,846	104,580	22,396	3,682	568	184	9,874	
20-24 years	1,219,962	410,466	408,444	228,522	91,870	31,368	13,640	35,652	
25-29 years	942,112	120,436	224,792	240,630	161,776	85,518	75,288	33,682	
30-34 years	588,402	41,508	86,236	128,680	116,900	79,248	112,662	23,168	
35-39 years	307,426	15,920	32,012	52,690	56,366	45,254	92,854	12,330	
40-44 years	77,976	3,378	6,188	10,258	11,970	10,596	32,420	3,166	
45 years and over	4,212	174	252	400	546	476	2,240	124	
Male									
Mothers of all ages	1,848,192	469,550	442,220	350,752	227,198	129,312	168,286	60,874	
Under 15 years	1,342	1,262	38	2	6	-	-	34	
15-19 years	235,898	163,420	53,632	11,496	1,888	280	84	5,098	
20-24 years	626,850	211,534	209,230	117,408	47,112	15,966	7,070	18,530	
25-29 years	483,520	62,158	115,586	123,574	83,080	43,550	38,486	17,086	
30-34 years	301,640	21,288	44,198	65,898	60,040	40,582	57,670	11,964	
35-39 years	156,952	8,088	16,280	26,932	28,734	23,366	47,100	6,452	
40-44 years	39,866	1,706	3,140	5,226	6,084	5,306	16,766	1,638	
45 years and over	2,124	94	116	216	254	262	1,110	72	

Table 5. Number of live births, by color and sex of infant, age of mother, and total-birth order: United States, 1960 live-birth cohort—Con.

Color and sex of infant and age of mother	All birth orders	Total-birth order							
		1	2	3	4	5	6 and over	Not stated	
<u>WHITE—Con.</u>									
<u>Female</u>									
Mothers of all ages	1,752,552	441,566	420,344	332,828	215,908	123,716	161,002	57,188	
Under 15 years	1,182	1,126	22	2	-	-	-	32	
15-19 years	222,232	153,426	50,948	10,900	1,794	288	100	4,776	
20-24 years	593,112	198,932	199,214	111,114	44,758	15,402	6,570	17,122	
25-29 years	458,592	58,278	109,206	117,056	78,686	41,968	36,802	16,596	
30-34 years	286,762	20,220	42,038	62,782	56,860	38,666	54,992	11,204	
35-39 years	150,474	7,832	15,732	25,758	27,632	21,888	45,754	5,878	
40-44 years	38,110	1,672	3,048	5,032	5,886	5,290	15,654	1,528	
45 years and over	2,088	80	136	184	292	214	1,130	52	
<u>ALL OTHER</u>									
<u>Both sexes</u>									
Mothers of all ages	657,106	136,446	118,840	99,522	78,406	60,314	157,002	6,576	
Under 15 years	4,256	3,986	206	12	6	-	-	46	
15-19 years	128,836	71,988	37,112	13,720	3,782	784	166	1,284	
20-24 years	206,950	41,948	50,970	46,814	32,592	18,460	14,012	2,184	
25-29 years	150,704	11,976	19,142	23,356	24,246	22,724	47,774	1,486	
30-34 years	99,320	4,452	7,984	10,670	11,686	12,074	51,500	984	
35-39 years	52,482	1,708	2,924	4,136	5,086	5,184	32,930	514	
40-44 years	13,588	364	474	770	980	1,026	9,852	122	
45 years and over	970	24	28	44	28	62	768	16	
<u>Male</u>									
Mothers of all ages	331,516	69,184	60,140	50,404	39,618	30,142	78,718	3,310	
Under 15 years	2,106	1,968	108	4	2	-	-	24	
15-19 years	65,584	36,512	18,878	7,162	1,892	394	86	660	
20-24 years	104,534	21,516	25,646	23,528	16,538	9,166	7,068	1,072	
25-29 years	75,568	5,980	9,648	11,836	12,202	11,340	23,814	748	
30-34 years	50,182	2,216	4,140	5,408	5,852	6,092	26,002	472	
35-39 years	26,262	826	1,484	2,046	2,612	2,606	16,442	246	
40-44 years	6,784	158	228	396	502	510	4,910	80	
45 years and over	496	8	8	24	18	34	396	8	
<u>Female</u>									
Mothers of all ages	325,590	67,262	58,700	49,118	38,788	30,172	78,284	3,266	
Under 15 years	2,150	2,018	98	8	4	-	-	22	
15-19 years	63,252	35,476	18,234	6,558	1,890	390	80	624	
20-24 years	102,416	20,432	25,324	23,286	16,054	9,294	6,944	1,082	
25-29 years	75,136	5,996	9,494	11,520	12,044	11,384	23,960	738	
30-34 years	49,138	2,236	3,844	5,262	5,834	5,982	25,498	482	
35-39 years	26,220	882	1,440	2,090	2,474	2,578	16,488	268	
40-44 years	6,804	206	246	374	478	516	4,942	42	
45 years and over	474	16	20	20	10	28	372	8	

APPENDIX I

TECHNICAL NOTES

The data in this report are derived from two sources. Data referring to all live births in 1960 are taken from Volume I of *Vital Statistics of the United States, 1960*. Data on birth characteristics of infants in the 1960 live birth cohort who died before reaching age 1 are derived from computer tapes prepared from a new set of punched cards which contained both birth and death information.

The punching instructions for detailed information in the new set of cards corresponded to the instructions for preparing cards for use in *Vital Statistics of the United States, 1960*. The classification and interpretation of certain important items is discussed in the following pages. The complete rules followed in the classification of geographic and personal items for births are set forth in *Vital Statistics Instruction Manual*.¹³

Age of Mother

The birth certificate asks for "Age (at time of this birth)." Some sources of minor errors in the age data have been noted. A small number of records are filed with age unspecified, and some births are not registered. Measures of variation of completeness of registration with age of mother are available from tests of completeness in 1950 and 1940.^{14,15} They show that registration completeness is approximately the same for all ages except for the oldest group, where it is lower.

Color

The category "white" includes, in addition to persons reported as white, persons reported to be Mexican or Puerto Rican and those with race not stated. The category "all other" consists of persons reported as Negro, American Indian, Chinese, and Japanese; persons of numerically

small racial groups; and persons of mixed white and other races.

Completeness of birth registration in 1960 is estimated by the Division of Vital Statistics, National Center for Health Statistics, to be 99.3 percent for "white" births and 96.4 percent for "all other" births. The most recent figures for other groups are from the 1950 test which indicated registration completeness at that time to be 85.1 percent for American Indians and 97.4 percent for "other races," chiefly Chinese and Japanese. Both figures are probably higher for 1960, but later data are not available.

A comparison of the race designation in matched sets of birth certificates and infant cards from the 1950 registration completeness test indicates very high agreement for white and Negro infants. There were, however, substantially fewer American Indians recorded on birth records than on census records.¹⁶

Control of Errors

The coding and punching of birth data for the live birth records for 1960 were performed simultaneously, and the major portion of the work was verified using a partial sequential sample. This procedure was used in verifying the work of employees whose performance (as indicated by complete verification) was such as to produce consistently less than 4-percent error distributed among all the items. For any one item, less than 1-percent error would be expected under these procedures.

A new set of punched cards, using the same procedures, was prepared for infant deaths combining the necessary birth and death information into one card. However, to preserve the consistency of the death information, once the infant death was identified, the coded cause-of-death information from NCHS computer tapes for all deaths was used.

Published data for all live births taken from Volume I of *Vital Statistics of the United States, 1960*, were used. For live birth characteristics of infant deaths, the newly created tapes were used. There are no estimates available of the degree of concordance between these two sources of information. Tabulating, computing, table preparation, and all other operations subsequent to the preparation of punched cards were verified.

Sampling of Birth Records

In this report, birth data for 1960 have been derived from a 50-percent systematic sample which consists of only even-numbered birth records. Statistics for this year were obtained by multiplying the sample figures by 2.

The sample data represent estimates which differ somewhat from figures that would have been derived by processing all the records. However, the manner in which records are numbered greatly reduces the sampling variability of totals for geographic areas. With few exceptions, records are numbered in the State offices of vital statistics as they are received from the local offices. The assignment of the last digit in the number is not selective, and the systematic sample of even-numbered records may be assumed to be unbiased.

The extent to which residence figures for States derived from the sample differ from the totals that would have resulted from a complete count depends on the amount of nonresident interchange. (This assumes virtually no error in the figures on a place-of-occurrence basis.) Since there is relatively little nonresident interchange of births among the States, the sampling errors for these geographic units are negligible.

The following table shows percent errors due to sampling in the published birth data by other than geographic characteristics. The chances are about 2 out of 3 that the percent difference due to sampling variability between the published figure based on the 50-percent sample and the result that would be obtained by a complete count is less than the appropriate percent error shown in the table. The chances are about 19 out of 20 that the percent difference is less than twice the percent error.

Number of births with a specified characteristic	Total births in area or to residents of area ¹							
	250	500	1,000	2,000	5,000	10,000	50,000	500,000
30	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
60	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
100	7.7	8.9	9.5	9.7	9.9	9.9	10.0	10.0
250	0.0	4.5	5.5	5.9	6.2	6.2	6.3	6.3
500 . . . . .	..	0.0	3.2	3.9	4.2	4.4	4.4	4.5
1,000 . . . . .	..	..	0.0	2.2	2.8	3.0	3.1	3.2
2,000 . . . . .	..	..	..	0.0	1.7	2.0	2.2	2.2
5,000 . . . . .	..	..	..	..	0.0	1.0	1.3	1.4
10,000 . . . . .	..	..	..	..	..	0.0	0.9	1.0
20,000 . . . . .	..	..	..	..	..	..	0.5	0.7
50,000 . . . . .	..	..	..	..	..	..	0.0	0.4

¹An "area" is the smallest geographic unit to which the figure under consideration pertains. If the area is a city or county of residence where appreciable nonresident interchange occurs, the sampling error will be slightly larger.

Registration Completeness

Although every State has adopted a law requiring the registration of births, deaths, and fetal deaths, these laws are not uniformly observed. In most areas practically all births and deaths are registered. For some areas, however, there is enough underregistration to affect the use of the statistics for certain purposes.

Nationwide tests of completeness of birth registration were made in both 1940 and 1950.^{14,15} For the United States as a whole, these tests indicated that birth registration was, respectively, 92.5 and 97.9 percent complete. A detailed discussion of the results of these tests was given in chapter 6, Volume I, *Vital Statistics of the United States, 1950*. On the basis of results of the 1950 test, it is estimated by the Division of Vital Statistics that in 1960 birth registration completeness was 98.9 percent for the country as a whole—99.3 for the white and 96.4 for all other groups, respectively.

Terms Used in This Report

1960 live-birth cohort.—Refers to infants born alive in 1960 who died before reaching age 1 year; both events occurred in the United States.

Total-birth order.—Refers to number of children ever born to mother including fetal deaths.

Infant mortality.—Death less than 1 year after birth.

Infant mortality rate.

Deaths less than 1 year after birth in 1960 $\times 100$
Live births in 1960

APPENDIX II

STANDARD CERTIFICATE OF LIVE BIRTH

Form approved
Budget Bureau No. 68-R374.2.

CERTIFICATE OF LIVE BIRTH				BIRTH NO.			
STATE OF							
1. PLACE OF BIRTH a. COUNTY				2. USUAL RESIDENCE OF MOTHER (Where does mother live?) a. STATE b. COUNTY			
3. CITY, TOWN, OR LOCATION				c. CITY, TOWN, OR LOCATION			
4. NAME OF HOSPITAL OR INSTITUTION (If not in Hospital, give street address)				d. STREET ADDRESS			
5. IS PLACE OF BIRTH INSIDE CITY LIMITS? YES <input type="checkbox"/> NO <input type="checkbox"/>				e. IS RESIDENCE INSIDE CITY LIMITS? YES <input type="checkbox"/> NO <input type="checkbox"/>		f. IS RESIDENCE ON A FARM? YES <input type="checkbox"/> NO <input type="checkbox"/>	
CHILD	3. NAME (Type or print) <i>First</i> <i>Middle</i> <i>Last</i>			6. DATE OF BIRTH Month Day Year			
	4. SEX	5a. THIS BIRTH SINGLE <input type="checkbox"/> TWIN <input type="checkbox"/> TRIPLET <input type="checkbox"/>	5b. IF TWIN OR TRIPLET, WAS CHILD BORN 1ST <input type="checkbox"/> 2D <input type="checkbox"/> 3D <input type="checkbox"/>				
FATHER	7. NAME <i>First</i> <i>Middle</i> <i>Last</i>			8. COLOR OR RACE			
	9. AGE (At time of this birth) YEARS		10. BIRTHPLACE (State or foreign country)		11a. USUAL OCCUPATION		11b. KIND OF BUSINESS OR INDUSTRY
MOTHER	12. MAIDEN NAME <i>First</i> <i>Middle</i> <i>Last</i>			13. COLOR OR RACE			
	14. AGE (At time of this birth) YEARS		15. BIRTHPLACE (State or foreign country)		16. PREVIOUS DELIVERIES TO MOTHER (Do NOT include this birth) a. How many OTHER children are now living? b. How many OTHER children were born alive but are now dead? c. How many fetal deaths (stillborn born dead at ANY time after conception)?		
17. INFORMANT							
18. MOTHER'S MAILING ADDRESS							
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE—PUBLIC HEALTH SERVICE	18a. SIGNATURE			18b. ATTENDANT AT BIRTH M. D. <input type="checkbox"/> D. O. <input type="checkbox"/> MIDWIFE <input type="checkbox"/> OTHER (Specify)			
	18c. ADDRESS			18d. DATE SIGNED			
19. DATE RECD. BY LOCAL REG.		20. REGISTRAR'S SIGNATURE			21. DATE ON WHICH GIVEN NAME ADDED BY (Registrar)		
FOR MEDICAL AND HEALTH USE ONLY (This section MUST be filled out)							
22a. LENGTH OF PREGNANCY COMPLETED WEEKS		22b. WEIGHT AT BIRTH LB. OZ.		23. LEGITIMATE YES <input type="checkbox"/> NO <input type="checkbox"/>			
(SPACE FOR ADDITION OF MEDICAL AND HEALTH ITEMS BY INDIVIDUAL STATES)							

CERTIFICATE OF DEATH										Form approved. Budget Bureau No. 68-R3752			
BIRTH NO.	STATE OF			STATE FILE NO.									
1. PLACE OF DEATH a. COUNTY				2. USUAL RESIDENCE (Where deceased lived. If institution, Residence before admission) a. STATE			b. COUNTY						
b. CITY, TOWN, OR LOCATION				c. LENGTH OF STAY IN 1b			c. CITY, TOWN, OR LOCATION						
d. NAME OF HOSPITAL OR INSTITUTION (If not in hospital, give street address)				d. STREET ADDRESS									
e. IS PLACE OF DEATH INSIDE CITY LIMITS? YES <input type="checkbox"/> NO <input type="checkbox"/>				e. IS RESIDENCE INSIDE CITY LIMITS? YES <input type="checkbox"/> NO <input type="checkbox"/>			f. IS RESIDENCE ON A FARM? YES <input type="checkbox"/> NO <input type="checkbox"/>						
3. NAME OF DECEASED (Type or print)				First Middle Last			4. DATE OF DEATH Month Day Year						
5. SEX		6. COLOR OR RACE		7. MARRIED <input type="checkbox"/> NEVER MARRIED <input type="checkbox"/> WIDOWED <input type="checkbox"/> DIVORCED <input type="checkbox"/>		8. DATE OF BIRTH		9. AGE (In years last birthday)		IF UNDER 1 YEAR IF UNDER 24 HRS Months Days Hours Min.			
10a. USUAL OCCUPATION (Give kind of work done during most of working life, even if retired)				10b. KIND OF BUSINESS OR INDUSTRY		11. BIRTHPLACE (State or foreign country)		12. CITIZEN OF WHAT COUNTRY?					
13. FATHER'S NAME				14. MOTHER'S MAIDEN NAME									
15. WAS DECEASED EVER IN U.S. ARMED FORCES? (Yes, no, or unknown) (If yes, give year or dates of service)				16. SOCIAL SECURITY NO.		17. INFORMANT		Address					
18. CAUSE OF DEATH (Enter only one cause per line for (a), (b), and (c).) PART I. DEATH WAS CAUSED BY: IMMEDIATE CAUSE (a) _____										INTERVAL BETWEEN ONSET AND DEATH			
Conditions, if any, which gave rise to above cause (a); stating the underlying cause last. (b) _____ (c) _____													
PART II. OTHER SIGNIFICANT CONDITIONS CONTRIBUTING TO DEATH BUT NOT RELATED TO THE TERMINAL DISEASE CONDITION GIVEN IN PART I(a)										19. WAS AUTOPSY PERFORMED? YES <input type="checkbox"/> NO <input type="checkbox"/>			
20a. ACCIDENT <input type="checkbox"/> SUICIDE <input type="checkbox"/> HOMICIDE <input type="checkbox"/>			20b. DESCRIBE HOW INJURY OCCURRED (Enter nature of injury in Part I or Part II of item 18.)										
20c. TIME OF INJURY Hour Month, Day, Year a. m. p. m.													
20d. INJURY OCCURRED WHILE AT WORK <input type="checkbox"/> NOT WHILE AT WORK <input type="checkbox"/>		20e. PLACE OF INJURY (e.g., in or about home, farm, factory, street, office (ldg., etc.)			20f. CITY, TOWN, OR LOCATION		COUNTY		STATE				
21. I attended the deceased from _____, to _____ and last saw her him alive on _____ Death occurred at _____ on the date stated above, and to the best of my knowledge, from the causes stated													
22a. SIGNATURE (Degree or title)					22b. ADDRESS					22c. DATE SIGNED			
23a. BURIAL, CREMATION, REMOVAL (Specify)		23b. DATE		23c. NAME OF CEMETERY OR CREMATORIAL			23d. LOCATION (City, town, or county)			(State)			
24. FUNERAL DIRECTOR ADDRESS					25. DATE RECD. BY LOCAL REG			26. REGISTRAR'S SIGNATURE					

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