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VITAL STATISTICS REPORT

National Natality Survey Statistics

FROM THE
NATIONAL CENTER FOR HEALTH STATISTICS

Interval Between First Marriage and Legitimate First Birth, United States, 1964-66

According to data from the 1964-66 National Natality Survey, there was an average of 1,008,000 legitimate first births each year to women aged 15-44 (table 1). An estimated annual average of 218,000, or 22 percent, were births to women who had been married for less than 8 months. Approximately 79,000, or 8 percent, were births to women whose first marriage was 5 years or more before the birth of the first child.

Approximately one-third of the legitimate first births were to women aged 15-19. An estimated 70 percent of these young women had been married for less than 12 months; 42 percent had been married for less than 8 months when their first child was

born. About 26 percent had been married for 12-23 months and only 4 percent for 24 months or more.

Almost one-half of the first births were to women aged 20-24. Among these women, approximately 35 percent had been married for less than 12 months; 14 percent had been married for less than 8 months when the first child was born. Approximately 35 percent had been married for 12-23 months and 30 percent had been married for 24 months or more.

Less than one-fifth of the legitimate first births were to women who were aged 25 years or over. Among women aged 25-29, only 17 percent had been married for less than 12 months at the time of the

Table 1. Annual average number of legitimate first births to women aged 15-44, according to age of mother and percent distribution by interval from first marriage to first birth: United States, 1964-66 National Natality Survey

Interval from first marriage to first birth	Total	Age of mother at first birth				
		15-19 years	20-24 years	25-29 years	30-34 years	35-44 years
Number of mothers in thousands-----	1,008	335	481	136	38	17
All intervals-----	100.0	100.0	100.0	100.0	100.0	100.0
Under 12 months-----	43.2	70.0	35.3	17.0	15.4	13.4
Under 8 months-----	21.6	42.4	14.5	3.7	1.7	1.9
8-11 months-----	21.6	27.7	20.8	13.3	13.7	11.5
12-23 months-----	28.7	25.6	34.9	19.7	15.3	15.4
12-17 months-----	17.6	17.7	20.9	9.1	9.3	7.7
18-23 months-----	11.1	8.0	14.0	10.6	5.9	7.7
24-35 months-----	11.6	3.3	17.3	14.3	5.1	6.1
36-47 months-----	5.8	0.6	8.0	10.4	8.6	1.9
48-59 months-----	2.9	0.3	2.0	11.6	5.1	5.8
60 months or more-----	7.8	0.2	2.6	26.9	50.5	57.4
60-119 months-----	5.6	*	*	23.0	28.3	11.5
120 months or more-----	2.2	*	*	3.9	22.3	45.9

*Figure does not meet standards of reliability or precision.

Interval from first marriage to first birth	Total	Family income			
		Under	\$3,000-	\$5,000-	\$7,000- \$10,000

birth and only 4 percent for less than 8 months. Approximately 27 percent had an interval of 60 months or more between their first marriage and first birth. Among women aged 30-34, about 51 percent and among women aged 35 or over, about 57 percent had been first married 60 months or more before the birth of the first child.

Of the annual average of 915,000 legitimate first births to white mothers, it is estimated that 41 percent were births to women married for less than 12 months and 20 percent were births to women married less than 8 months. Of the 93,000 legitimate first births to all other mothers, it is estimated that 64 percent were births to women married for less than 12 months and 42 percent were births to women married less than 8 months (table 2). Regardless of color, between 7 and 8 percent of the first births were to women whose first marriage was 60 months or more before the birth.

In addition to the age and color of the mother, which were derived from the birth certificate, the 1964-66 National Natality Survey also collected information on the income of the family during the calendar year preceding the child's birth and the level of education of the mother. Unlike age and color, which are not changed by pregnancy and birth, the level of the family income and the educational attainment of the mother might be influenced by her first pregnancy. When parents marry because of a

Table 2. Annual average number of legitimate first births to women aged 15-44, according to color of mother and percent distribution by interval from first marriage to first birth: United States, 1964-66 National Natality Survey

Interval from first marriage to first birth	Total	Color of mother	
		White	All other
Number of mothers in thousands-----	1,008	915	93
All intervals-----	100.0	100.0	100.0
Under 12 months-----	43.2	41.2	63.5
Under 8 months-----	21.6	19.5	41.6
8-11 months-----	21.6	21.6	21.9
12-23 months-----	28.7	29.8	17.9
12-17 months-----	17.6	18.3	10.5
18-23 months-----	11.1	11.5	7.4
24-35 months-----	11.6	11.9	8.0
36-47 months-----	5.8	6.2	2.3
48-59 months-----	2.9	3.1	1.1
60 months or more-----	7.8	7.9	7.2

pregnancy, it is possible that they may not have attained the income or the education they had expected before marriage. Although families at the lower income levels and women at lower levels of educational attainment have shorter intervals between first marriage and first birth than those at the higher income or educational levels, it may be that these low levels are in part the result of the short interval rather than the cause. It should also be noted that 62 percent of the mothers of first births in families with an income under \$3,000 and 66 percent of the mothers who had not completed high school were under 20 years of age at the time the child was born.

The proportion of first births to women who had been married for less than 12 months was lower and the proportion to women who had been married 60 months or more was higher as the family reported a higher income. Among families with an income of less than \$3,000 during the year before the child's birth (table 3), 66 percent of the births were to women who had been married for less than 12 months and only 2 percent to women who had been married 60 months or more. Where the family income was \$10,000 and over, 23 percent of the births were to women married less than 12 months and 18 percent to women married for 60 months or more.

When the mothers were classified by level of educational attainment (table 4), the highest proportion of births to women married for less than 8 months was found among women with 1-3 years of high school. Approximately 32 percent of these women had been married for less than 8 months as compared with 21 percent who had not gone beyond elementary school, 21 percent who had graduated from high school but had not gone to college, 18 percent who had completed 1-3 years of college, and 7 percent who were college graduates.

There was less variation in the proportions in any of the longer intervals between first marriage and first birth when the mothers were classified by educational attainment than by family income.

The interval "less than 8 months" was used for tabulations because of its usefulness as a measure of premarital conception. It is not an exact measure because the period of gestation may be less than 36 weeks and the interval between date of first marriage and date of first birth was measured in months, which is not as precise as a measurement in weeks or days. However, data from the 1963 National Natality Survey indicate that only 5 percent of the legitimate births that year had a reported gestation period of less than 36 weeks. And, even though the interval was measured in months, the upper limit in the extreme case of a marriage on the first day of the month and a birth on the last day of the month 8 months later would actually be under 9 months; the average interval would be 8 months.

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If the assumption is made that the first births tabulated as being within 8 months of first marriages were indeed premarital conceptions, then the data from the 1964-66 National Natality Survey indicate that of the average 1,174,000 first births to women aged 15-44 which occurred in the United States each

year during 1964-66, 166,000, or 14 percent, were illegitimate and 218,000, or 19 percent, were premarital conceptions of legitimate babies. Thus an annual average of 384,000, or 33 percent, of the first births during those years were conceived outside marriage.

Table 3. Annual average number of legitimate first births to women aged 15-44, according to family income and percent distribution by interval from first marriage to first birth: United States, 1964-66 National Natality Survey

Interval from first marriage to first birth	Total	Family income				
		Under \$3,000	\$3,000-\$4,999	\$5,000-\$6,999	\$7,000-\$9,999	\$10,000 and over
Number of mothers in thousands-----	1,008	248	230	228	184	118
All intervals-----	100.0	100.0	100.0	100.0	100.0	100.0
Under 12 months-----	43.2	65.6	45.2	38.8	29.4	22.6
Under 8 months-----	21.6	37.5	23.3	17.6	11.5	8.2
8-11 months-----	21.6	28.1	21.9	21.2	17.8	14.4
12-23 months-----	28.7	25.5	31.2	31.3	28.6	25.4
12-17 months-----	17.6	15.7	20.1	16.8	19.5	14.7
18-23 months-----	11.1	9.7	11.1	14.5	9.0	10.7
24-35 months-----	11.6	4.1	10.1	12.8	17.6	18.5
36-47 months-----	5.8	1.8	5.4	6.5	9.2	8.3
48-59 months-----	2.9	0.9	2.2	3.0	3.7	7.1
60 months or more-----	7.8	2.2	6.0	7.5	11.5	18.1

Table 4. Annual average number of legitimate first births to women aged 15-44, according to educational attainment of mother and percent distribution by interval from first marriage to first birth: United States, 1964-66 National Natality Survey

Interval from first marriage to first birth	Total	Level of educational attainment of mother				
		Elementary School	High School		College	
			1-3 years	4 years	1-3 years	4 years or more
Number of mothers in thousands-----	1,008	61	224	492	139	92
All intervals-----	100.0	100.0	100.0	100.0	100.0	100.0
Under 12 months-----	43.2	45.0	53.7	42.6	39.4	26.0
Under 8 months-----	21.6	21.2	31.6	20.7	18.1	7.5
8-11 months-----	21.6	23.9	22.1	21.8	21.3	18.5
12-23 months-----	28.7	26.7	26.7	29.5	30.6	27.7
12-17 months-----	17.6	18.5	16.3	17.9	18.1	17.3
18-23 months-----	11.1	8.2	10.3	11.6	12.5	10.3
24-35 months-----	11.6	11.6	6.6	12.1	12.3	19.5
36-47 months-----	5.8	6.1	3.3	6.3	5.4	9.5
48-59 months-----	2.9	1.7	1.5	2.8	3.6	6.9
60 months or more-----	7.8	8.8	8.2	6.8	8.6	10.5

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Technical Notes

The data presented here were collected in the 1964-66 National Natality Survey. This survey, conducted by the National Center for Health Statistics, was designed to provide information about certain demographic and socioeconomic characteristics of the mother in addition to those recorded on the birth certificate.

The sampling frame for the survey was the file of microfilms of birth records received each month from 54 registration areas of the United States. A sample of 1 out of 1,000 births was selected from these monthly shipments of records. The total sample size for 1964-66 was 11,331 births. Of these, 936 (8.3 percent) were reported or inferred to be illegitimate. No attempts to obtain information from mothers of illegitimate infants were made. The number of legitimate first births in the sample was 3,009.

RESPONSE. Data were collected primarily by mail. Using the address given on the birth certificate, questionnaires were sent to the mothers. About 89 percent of the mothers having legitimate births were respondents. Counted as nonrespondents were mothers who did not return questionnaires and those who were not sent questionnaires because they resided in States which did not participate in the survey, resided outside the United States, or were without a valid mailing address. The characteristics of respondents in similar age, color, and birth order classes were used to impute data on nonrespondents.

RELIABILITY. The probability design of the survey makes possible the calculation of sampling errors. The standard error is a measure of the sampling variation that occurs by chance because only a sample rather than the entire population of births is surveyed. Approximate standard errors for estimated numbers and percentages are shown in tables I and II. A detailed discussion of standard errors is published in PHS Pub. No. 1000-Series 22-No. 3.

DEFINITION OF TERMS

Age of mother.—Age of mother is recorded or derived from entries on the birth certificate. Age in this report refers to age at last birthday.

Date of birth.—The date of birth is recorded on the birth certificate.

Educational attainment.—Educational attainment in this report refers to the highest grade of regular school completed. Regular school consists of elementary and high schools and college or university and does not include trade or business schools. Data are derived from responses to the questionnaire concerning the highest grade of school attended by the mother and whether or not that grade was completed.

Family income.—Family income refers to the total income received during the calendar year preceding the child's birth by the mother and all persons related to the mother by blood, marriage, or adoption and living in the household at the time of the birth.

First births.—Live-birth order is derived from an item on the birth certificate asking for the number of previous live births. If there were no previous live births, this was a first birth.

First marriage.—First marriage was coded from the item on the questionnaire asking for month, day, and year of first marriage.

Interval from first marriage to first birth.—This was the difference between the date of first marriage and the date of first birth, measured in months.

Color.—Color is recorded or derived from entries on the birth certificate. The category "White" includes births to parents classified as white, Mexican, or Puerto Rican. The category "All other" includes births to parents at least one of whom was classified as Negro, American Indian, Chinese, Japanese, Aleut, Eskimo, Hawaiian, or part-Hawaiian.

Table II. APPROXIMATE STANDARD ERRORS FOR ESTIMATED PERCENTAGES EXPRESSED IN PERCENTAGE POINTS: 1964-66 NATIONAL NATALITY SURVEY

Base of percentage	Estimated percentage							
	2 or 98	5 or 95	10 or 90	20 or 80	25 or 75	30 or 70	40 or 60	50
30,000-----	1.5	2.3	3.2	4.2	4.6	4.8	5.2	5.3
50,000-----	1.1	1.8	2.4	3.3	3.5	3.7	4.0	4.1
100,000-----	0.8	1.3	1.7	2.3	2.5	2.6	2.8	2.9
250,000-----	0.5	0.8	1.1	1.5	1.6	1.7	1.8	1.8
500,000-----	0.4	0.6	0.8	1.0	1.1	1.2	1.3	1.3
1,000,000-----	0.3	0.4	0.5	0.7	0.8	0.8	0.9	0.9
2,000,000-----	0.2	0.3	0.4	0.5	0.6	0.6	0.6	0.6
3,000,000-----	0.1	0.2	0.3	0.4	0.5	0.5	0.5	0.5
4,000,000-----	0.1	0.2	0.3	0.4	0.4	0.4	0.4	0.5

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Table I. APPROXIMATE STANDARD ERRORS FOR ESTIMATED NUMBERS: 1964-66 NATIONAL NATALITY SURVEY

Size of estimate	Relative standard error	Standard error
10,000-----	19.6	1,960
25,000-----	10.9	2,725
50,000-----	7.5	3,750
100,000-----	4.9	4,910
200,000-----	3.3	6,600
300,000-----	2.5	7,590
500,000-----	2.0	10,100
700,000-----	1.8	12,670
1,000,000-----	1.3	13,200

