

FROM VITAL \& HEALTH STATISTICS OF THE NATIONAL CENTER FOR HEALTH STATISTICS

# Wanted and Unwanted Births Reported by Mothers 15-44 Years of Age: United States, $1976{ }^{1}$ 

According to results from the 1976 National Survey of Family Growth, an estimated 8.1 million, or 12.0 percent, of a total of 67.8 million live births that had occurred to mothers 15-44 years of age were unwanted. Of an average 2.5 births per mother, 2.0 were wanted at the time of conception, 0.3 were unwanted at that time, and 0.2 births were classified as "undetermined." More than four-fifths of the births to white women were reported as wanted compared with only three-fifths of the births to black women. The proportion of unwanted births for black women ( 25.8 percent) was almost 3 times that for white women ( 9.5 percent). The wantedness of another 13.8 percent of births to black women and 7.0 percent to white women was undetermined because the women's feelings at the time of conception were not known.

These and other figures in this report indicate a modest, statistically nonsignificant decrease in the proportion of unwanted births since the 1973 National Survey of Family Growth. ${ }^{2}$ However, the summary data in this report do not provide the best basis for examining trends in wanted and unwanted fertility in recent years because changes in these proportions between 1973 and 1976 might be obscured

[^0]by the large overlap of births occurring in 1973 and earlier years reported in both surveys. An analysis of trends in wanted and unwanted childbearing based on more detailed data will be the subject of a later report.

The data for Cycle II of the National Survey of Family Growth, which was conducted by the National Center for Health Statistics, were collected by means of personal interviews with a multistage probability sample of women 15-44 years of age in the household population of the conterminous United States. Women were eligible for inclusion in the sample if they were currently married, previously married, or never married but with offspring presently living in the household. From January through September 1976, 3,009 black women and 5,602 women of other races were interviewed for Cycle II of the survey. Further discussion of the survey design, sampling variability, and definition of terms appears in the "Technical Notes."

## THE CONCEPT OF WANTEDNESS

For each pregnancy ending in a live birth, a series of questions was asked to determine whether or not the woman, at the time of conception, had wanted that pregnancy. If contraception had not been used or had been stopped prior to a specified pregnancy, the woman was asked: "Was the reason you (were not/stopped) ${ }^{3}$ using any methods because you, yourself, wanted to become pregnant?" If she had avoid-

[^1]ed or stopped using contraception for some other reason, or if she had become pregnant while using a method, she was asked: "At the time you became pregnant . . ., did you, yourself, actually want a(nother) baby at some time?" To emphasize the importance of her feelings at the time of conception, each woman was asked: "As you recall, is that how you felt before you became pregnant, or did you come to feel that way later?" Finally, women who reported that they did not know or remember how they had felt at the time of conception were asked whether they had "probably wanted a(nother) baby sometime or probably not."

The pregnancy was classified as wanted at conception if the respondent had stopped or was not using contraception in order to become pregnant, if she had wanted a(nother) child at some time and had felt that way before she became pregnant, or if she probably wanted a(nother) child sometime. The pregnancy was classified as unwanted if she had not wanted a(nother) child sometime and felt that way before she became pregnant or if she probably had not wanted a(nother) child sometime. The wantedness of a pregnancy was classified as undetermined if the woman said she wanted a(nother) child sometime but she came to feel that way after conception, if she did not want a(nother) child sometime and felt that way after conception, or if her feelings about the pregnancy at the time of conception were unknown altogether. It is important to emphasize that interest is focused on wantedness of a pregnancy at the time of conception rather than wantedness of a particular child. For this reason the present analysis treats multiple births as a single birth outcome.

As may be seen in table 1, 79.9 percent of births were wanted at conception and another 5.3 percent were wanted after conception, while 12.0 percent were unwanted at conception and another 1.6 percent were unwanted after conception. The substantial proportion of births which became wanted after conception ( 5.3 percent) is evidence that an unwanted or unintended pregnancy does not necessarily mean an unwanted child. At the same time, these births represent a sizable proportion of births that would not have occurred or would have occurred at a later time if these mothers had had only the births that were wanted at conception.

## HIGHLIGHTS OF FINDINGS

Table 1 shows that the proportion of births that were wanted either at or after conception decreased with age from about 90 percent among mothers aged $20-29$ years to about 81 percent among mothers aged 40-44. Teenage mothers were an exception. In fact, the proportion of births wanted at conception by teenage mothers, who had had an average of only 1.2 births, was as low as that among mothers in their early forties, who had had 3 times as many births on the average ( 3.5 births).

The proportion of births that were unwanted at the time of conception was low among mothers in their twenties ( 7 percent) and rose to almost 16 percent among those $40-44$ years of age. Again the teenage mothers were an exception, reporting a higher proportion of their births as unwanted at conception ( 9 percent) than women in their twenties did.

There is a need to take a closer look at the reporting of births unwanted at the time of conception among mothers under age 25 , especially among teenage mothers. Because these are largely first and second births, these mothers appear to have said that at the time of conception they wanted no births at all or no more than one. Although this may be true, another plausible view is that some births reported as unwanted at conception actually were wanted, but they were wanted at a later time because of the circumstances under which they occurred. For instance, the birth may have been the result of a premarital conception or may have occurred during the dissolution of a marriage. In any case, these early unwanted births suggest that when a woman has more births over her childbearing years than she wanted, the number unwanted may have occurred at the beginning rather than the end of her childbearing experience. In other words, some of the unwanted births reported by older mothers and by mothers with more than one child were their first births.

Table 1 also reveals that the proportion of births wanted at conception decreases with increasing numbers of children already born (parity) among mothers with more than two children. The proportions of births unwanted at conception correspondingly increase dramatically from 1 in 25 ( 3.9 percent) among mothers

Table 1. Number of mothers $15-44$ years of age, number of live births, and percent distribution of births by whether wanted, unwanted, or undetermined, according to race, age, and parity: United States, 1976

| Race, age, and parity | Number of mothers in thousands | Number of births in thousands ${ }^{1}$ | Total | Wanted at conception | Unwanted at conception | Undetermined |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Wanted after conception | Unwanted after conception | Unknown |
| RACE AND AGE |  |  | Percent distribution |  |  |  |  |  |
| All races ${ }^{2}$ |  |  |  |  |  |  |  |  |  |  |
| All ages............................... | 27,055 | 67,849 | 100.0 | 79.9 | 12.0 | 5.3 | 1.6 | 1.2 |
| 15-19 years................................... | 811 | 972 | 100.0 | 75.2 | *9.3 | *11.9 | *2.1 | *1.7 |
| 20-24 years................................... | 3,653 | 5,384 | 100.0 | 83.2 | 7.2 | *6.9 | *1.2 | *1.5 |
| 25-29 years................................... | 6,075 | 11,574 | 100.0 | 85.6 | 7.4 | 5.2 | *0.9 | *0.8 |
| 30-34 years................................... | 6,146 | 15,863 | 100.0 | 82.1 | 10.7 | 4.6 | *1.5 | *1.3 |
| 35-39 years................................... | 5,313 | 16,168 | 100.0 | 77.8 | 14.2 | 5.1 | *1.8 | *1.1 |
| 40-44 years................................... | 5,057 | 17,888 | 100.0 | 75.4 | 15.7 | 5.3 | *2.1 | *1.6 |
| White |  |  |  |  |  |  |  |  |
| All ages............................... | 22,837 | 56,238 | 100.0 | 83.4 | 9.5 | 4.7 | 1.1 | 1.2 |
| 15-19 years.................................... | 507 | 586 | 100.0 | 80.9 | *8.0 | *8.5 | 0.0 | *2.5 |
| 20-24 years................................... | 2,896 | 4,128 | 100.0 | 87.8 | *3.9 | *6.3 | *0.5 | *1.5 |
| 25-29 years................................... | 5,160 | 9,637 | 100.0 | 88.9 | 5.5 | 4.5 | *0.4 | *0.8 |
| 30-34 years................................... | 5,281 | 13,411 | 100.0 | 84.9 | 8.6 | 4.3 | *1.0 | *1.2 |
| $35-39$ years..................................... | 4,612 | 13,657 | 100.0 | 81.2 | 11.5 | 4.6 | *1.4 | *1.2 |
| $40-44$ years.................................... | 4,380 | 14,818 | 100.0 | 79.5 | 12.7 | 4.7 | *1.8 | *1.3 |
| Black |  |  |  |  |  |  |  |  |
| All ages............................... | 3,726 | 10,525 | 100.0 | 60.4 | 25.8 | 8.1 | *4.0 | *1.7 |
| 15-19 years................................... | 298 | 380 | 100.0 | 65.8 | *11.4 | *17.2 | *5.3 | *0.3 |
| $20-24$ years................................... | 707 | 1,193 | 100.0 | 66.7 | *18.5 | *9.6 | *3.9 | *1.4 |
| 25-29 years.................................... | 763 | 1,670 | 100.0 | 66.9 | 18.9 | *9.7 | *3.7 | *0.8 |
| 30-34 years.................................... | 740 | 2,158 | 100.0 | 63.3 | 24.1 | *6.5 | *4.5 | *1.7 |
| 35-39 years.................................... | 591 | 2,240 | 100.0 | 55.4 | 31.9 | *8.3 | *3.6 | *0.8 |
| 40-44 years................................... | 628 | 2,885 | 100.0 | 55.0 | 31.3 | *6.5 | *4.1 | *3.1 |
| RACE AND PARITY |  |  |  |  |  |  |  |  |
| All ages............................... | 27,055 | 67,849 | 100.0 | 79.9 | 12.0 | 5.3 | 1.6 | 1.2 |
| 1 ................................................ | 7.218 | 7,218 | 100.0 | 88.3 | *3.9 | 6.0 | *0.8 | *1.0 |
| 2 ................................................ | 8,979 | 17,891 | 100.0 | 90.1 | 4.4 | 4.1 | *0.6 | *0.7 |
| 3 ................................................ | 5,617 | 16,637 | 100.0 | 80.2 | 12.3 | 5.1 | *1.3 | *1.2 |
| 4 ................................................ | 2,515 | 9,921 | 100.0 | 77.9 | 13.1 | 5.7 | * 2.0 | *1.3 |
| 5 ................................................ | 1,399 | 6,922 | 100.0 | 70.1 | 20.5 | 6.0 | *1.7 | *1.6 |
| 6 or more...................................... | 1,326 | 9,260 | 100.0 | 62.4 | 24.7 | 6.3 | 4.3 | *2.2 |
| White |  |  |  |  |  |  |  |  |
| 1 ................................................ | 5,890 | 5,890 | 100.0 | 90.7 | *2.4 | *5.3 | *0.4 | *1.2 |
| 2 ................................................ | 7,860 | 15,665 | 100.0 | 92.0 | 3.4 | 3.6 | *0.4 | *0.7 |
| 3 ................................................ | 4,887 | 14,473 | 100.0 | 82.1 | 11.0 | 4.7 | *1.0 | *1.2 |
| 4 ................................................ | 2,153 | 8,496 | 100.0 | 80.0 | 11.6 | 5.4 | *1.7 | *1.4 |
| 5 ................................................ | 1,164 | 5,754 | 100.0 | 72.8 | 18.9 | *5.9 | *1.1 | *1.3 |
| 6 or more...................................... | 883 | 5,960 | 100.0 | 72.1 | 16.9 | *5.3 | * 3.6 | *2.1 |

See footnotes at end of table.

Table 1. Number of mothers $15-44$ years of age, number of live births, and percent distribution of births by whether wanted, unwanted, or undetermined, according to race, age, and parity: United States, 1976-Con.

| Race, age, and parity | Number of mothers in thousands | Number of births in thousands ${ }^{1}$ | Total | Wanted at conception | Unwanted at conception | Undetermined |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Wanted after conception | Unwanted after conception | Unknown |
| RACE AND PARITY-Con. |  |  |  |  |  |  |  |  |
|  |  |  | Percent distribution |  |  |  |  |  |
|  | 1,159 | 1,159 | 100.0 | 75.3 | *11.3 | *10.3 | *2.9 | *0.2 |
| 2 ............................................... | 967 | 1,922 | 100.0 | 74.3 | *13.4 | *8.5 | *2.4 | *1.4 |
| 3 .............................................. | 616 | 1,829 | 100.0 | 65.6 | 22.6 | *7.9 | *3.0 | *0.9 |
| 4 .............................................. | 331 | 1,298 | 100.0 | 62.3 | 23.8 | *8.6 | *4.6 | *0.8 |
| 5 .............................................. | 223 | 1,106 | 100.0 | 54.4 | 30.4 | *7.1 | *4.8 | *3.3 |
| 6 or more..................................... | 431 | 3,211 | 100.0 | 45.0 | 39.5 | *7.3 | *5.6 | *2.6 |

${ }^{1}$ Multiple births are counted only once.
$2_{\text {Includes white, black, and other races. }}$
of parity one to almost 1 in 4 ( 24.7 percent) among mothers of parity six or higher.

One of the largest differences observed in table 1 is between white mothers, 83.4 percent of whose births were reported as wanted at conception, and black mothers, who reported 23 percentage points fewer wanted births ( 60.4 percent). One-fourth of births to black mothers (25.8 percent) were reported as unwanted at conception. This is almost 3 times the proportion of births unwanted at conception by white mothers ( 9.5 percent). The differences between black and white mothers in the proportions of wanted births are seen in all age groups, reaching 25.1 percentage points fewer wanted births by black mothers 35 years and older, and are statistically significant in all but the teenage group. Although black mothers had borne a greater average number of children and had nearly twice the proportion of women at parity five or more, the differences between black and white mothers within the same parity groups remained and were statistically significant in three out of the six comparisons by parity. Furthermore, the proportion of wanted births to white mothers at parity six or more was only 3 percentage points lower than that for black mothers at parity one.

Table 2, unlike table 1, shows only one combined figure for the three different components of the undetermined category and thus indicates only the percent of births that were wanted or unwanted at the time of conception. The
wantedness of births to women of Hispanic origin (regardless of race) was about the same as that for all white women-83.1 percent compared with 83.4 percent of births wanted, 10.2 percent compared with 9.5 percent of births unwanted, and 6.8 percent compared with 7.0 percent undetermined among Hispanic women and all white women, respectively.

There is no significant difference in the proportion of wanted births to women of different geographic regions, although women in the South reported a smaller proportion of their births as wanted than women of all other regions combined did. This may be attributed partly to the fact that a higher proportion of black and high-parity families live in the South.

The highest proportion of wanted births was among those women whose level of education was highest. For example, women with 4 or more years of college reported 90.7 percent of their births as wanted at the time they were conceived, while women with an elementary school education (8 years or less) reported only 72.5 percent wanted. The proportion of unwanted births among women with an elementary school education ( 17.4 percent) was nearly 4 times that among college graduates ( 4.7 percent). These educational differences are very likely associated with the parity differences noted above, since women with 4 or more years of college had borne an average of 1.2 children, almost twothirds less than women with only an elementary

Table 2. Number of mothers $15-44$ years of age, number of live births, and percent distribution of births by whether wanted, unwanted, or undetermined, according to selected characteristics: United States, 1976

| Characteristic | Number of mothers in thousands | Number of births in thousands ${ }^{\text {I }}$ | Total | Wanted at conception | Unwanted at conception | Undetermined |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total............................. |  |  | Percent distribution |  |  |  |
|  | 27,055 | 67,849 | 100.0 | 79.9 | 12.0 | 8.1 |
| Origin |  |  |  |  |  |  |
| Hispanic.................................. | 1,799 | 4,516 | 100.0 | 83.1 | 10.2 | *6.8 |
| All other................................. | 25,208 | 63,202 | 100.0 |  | 12.1 |  |
| Geographic region |  |  |  |  |  |  |
| Northeast................................. | 5,513 | 13,784 | 100.0 | 80.7 | 10.3 | 9.0 |
| North Central........................... | 7,688 | 19,654 | 100.0 | 79.6 | 12.7 | 7.7 |
| South...................................... | 9,237 | 22,661 | 100.0 | 78.8 | 12.5 | 8.8 |
| West....................................... | 4,616 | 11,750 | 100.0 | 81.5 | 11.8 | 6.7 |
| Woman's education |  |  |  |  |  |  |
| Elementary school, 8 years or less... | 2,187 | 7,274 | 100.0 | 72.5 | 17.4 | 10.1 |
| High school, 1-3 years................. | 5,478 | 15,543 | 100.0 | 73.0 | 15.5 | 11.5 |
| High school, 4 years................... | 12,651 | 30,405 | 100.0 | 81.4 | 11.2 | 7.4 |
| College, 1-3 years....................... | 3,763 | 8,391 | 100.0 | 85.4 | 9.3 | 5.3 |
| College, 4 years or more.............. | 2,925 | 6,114 | 100.0 | 90.7 | *4.7 | *4.6 |
| Husband's education |  |  |  |  |  |  |
| Elementary school, 8 years or less. $\qquad$ | 2,498 | 8,800 | 100.0 | 72.6 | 15.7 | 11.7 |
| High school, 1-3 years................. | 4,248 | 11,427 | 100.0 | 74.7 | 15.8 | 9.5 |
| High school, 4 years................... | 9,246 | 22,362 | 100.0 | 81.8 | 10.2 | 8.0 |
| College, 1-3 years...................... | 4,446 | 10,295 | 100.0 | 85.3 | 9.6 | 5.1 |
| College, 4 years or more.............. | 4,807 | 10,940 | 100.0 | 89.0 | 6.1 | 5.0 |
| $\frac{\text { Woman's labor }}{\text { force status }}$ |  |  |  |  |  |  |
| Not in labor force....................... | 14,588 | 37,213 | 100.0 | 81.1 | 10.5 | 8.3 |
| In labor force............................ | 12,409 | 30,442 | 100.0 | 78.4 | 13.7 | 7.9 |
| Working full time.................. | 8,392 | 20,114 | 100.0 | 77.3 | 15.0 | 7.7 |
| Working part time................. | 3,221 | 8,262 | 100.0 | 81.6 | 10.3 | 8.1 |
| Not working......................... | 795 | 2,066 | 100.0 | 77.0 | *14.9 | *8.0 |
| Poverty level income |  |  |  |  |  |  |
| Below 100 percent...................... | 2,840 | 8,892 | 100.0 | 66.3 | 21.6 | 12.1 |
| 100-1 49 percent........................ | 2,501 | 6,968 | 100.0 | 77.3 | 13.9 | 8.8 |
| 150 percent and above................ | 18,279 | 42,845 | 100.0 | 84.2 | 9.2 | 6.6 |
| Religion |  |  |  |  |  |  |
| Catholic.................................... | 7,379 | 19,147 | 100.0 | 83.0 | 9.6 | 7.4 |
| Protestant................................ | 17,554 | 44,026 | 100.0 | 78.3 | 13.1 | 8.6 |
| Jewish..................................... | 611 | 1,366 | 100.0 | 88.8 | *5.2 | *6.0 |
| Other...................................... | 354 | 796 | 100.0 | 88.0 | *5.1 | *6.9 |
| None....................................... | 1,090 | 2,296 | 100.0 | 77.5 | 16.1 | *6.4 |

[^2]Table 2. Number of mothers 15-44 years of age, number of live births, and percent distribution of births by whether wanted, unwanted, or undetermined, according to selected characteristics: United States, 1976-Con.

| Characteristic | Number of mothers in thousands | Number of births in thousands ${ }^{1}$ | Total | Wanted at conception | Unwanted at conception | Undetermined |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Previous marriages |  |  | Percent distribution |  |  |  |
| One or more............................. | 4,111 | 11,395 | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 76.1 \\ & 81.5 \\ & 55.1 \end{aligned}$ | 15.1 | 8.9 |
| None...................................... | 21,858 | 54,614 |  |  | $\begin{aligned} & 10.8 \\ & 27.2 \end{aligned}$ | 7.7 |
| Never married........................... | 1,071 | 1,785 |  |  |  | *17.8 |
| Fetal losses |  |  |  |  |  |  |
| No losses................................. | 19,956 | 47,545 | 100.0 | 80.3 | 11.3 | 8.5 |
| 1 loss...................................... | 4,842 | 13,342 | 100.0 | 79.5 | 12.9 | 7.6 |
| 2 losses or more........................ | 2,257 | 6,963 | 100.0 | 78.0 | 15.0 | 7.1 |
| Desired family size at time of interview |  |  |  |  |  |  |
| No children............................. | 725 | 1,842 | 100.0 | 56.9 | 33.7 | *9.4 |
| 1 child.................................... | 1,412 | 2,176 | 100.0 | 75.5 | *15.2 | *9.3 |
| 2 children................................ | 11,865 | 25,528 | 100.0 | 79.3 | 13.0 | 7.7 |
| 3 or 4 children......................... | 10,222 | 27,472 | 100.0 | 81.7 | 10.0 | 8.4 |
| 5 or 6 children.......................... | 1,963 | 7,183 | 100.0 | 81.8 | 10.5 | 7.7 |
| 7 children or more..................... | 590 | 2,656 | 100.0 | 81.5 | *10.3 | *8.2 |

${ }^{1}$ Multiple births are counted only once.
education. The pattern for wantedness of births by husbands' education was the same as that found with women's education.

Mothers not in the labor force or working only part time had a higher proportion of wanted births ( 81.2 percent) than mothers working full time or not at work because of vacation, illness, or being between jobs ( 77.3 percent), despite the fact that they had borne slightly more children on the average.

Differences in the proportions of wanted births between the income groups shown in table 2 were as marked as the differences between educational groups. Mothers with a family income below the poverty level had wanted only two-thirds of their births at conception compared with more than four out of five births wanted among mothers whose family income was 150 percent of the poverty level or more. These differences by income may also be reflected in the decreasing proportions of wanted births among mothers of increasingly higher parities; those with incomes below the poverty level had borne almost one child more, on the average, than mothers with the highest family incomes had.

The proportion of wanted births reported by Catholics ( 83.0 percent) was higher than that reported by Protestants ( 78.3 percent), and the proportion of unwanted births was correspondingly lower among Catholic than among Protestant mothers. The proportion of undetermined births was also lower for Catholic women than for Protestant mothers, but the difference is not statistically significant. Jewish mothers and mothers of "other" religions combined had an even larger proportion of wanted births ( 88.5 percent), although not significantly larger than the proportion for Catholic mothers. Mothers with no religious affiliation had a nonsignificantly higher proportion of unwanted births (16.1 percent) than any of the religious groups.

Mothers who had been married only once had proportionately more wanted births (81.5 percent) than mothers who had been married more than once ( 76.1 percent), and both had higher proportions of wanted births than mothers who had never been married (55.1 percent). The wanted births to never-married mothers should not necessarily be interpreted to mean that these women wanted the births to occur before marriage; mothers responded to the
question as to whether or not they, at the time of conception, had wanted a baby sometime. It is likely that these mothers also responded positively to a later question on whether they became pregnant sooner than they had wanted to.

The proportions of births that were wanted at conception declined with increasing numbers of fetal losses a mother had experienced; the proportions of births that had been unwanted at conception correspondingly increased with the number of fetal losses. However, none of these differences in the proportions wanted and unwanted meet the test of statistical significance.

Women were asked about the total number of children they desired at the time of the survey, that is, the number they would like to have if they were able to begin their childbearing over again. The response categories are shown in table 2. As might be expected, mothers who had already borne more children than they desired had relatively high proportions of unwanted births. For instance, mothers who desired no children at all had already had an average of 2.5 births, one-third of which had been unwanted at conception and another 9 percent of which had been undetermined. Women who desired one or
two children had also had, on the average, more than they desired. It is evident that mothers who desired fewer than three children had wanted between one-half and four-fifths of their births at the time of conception, which suggests that the number of children desired is a very changeable number over time. Mothers who desired three and more children, however, had not yet borne this number on the average, but 10 percent of their births were reported as being unwanted at conception. Because these women expressed the desire for more children, it may be that their unwanted births occurred early in their childbearing.

Although the data in this report tell us little about the causes of unintended pregnancies, they reveal the groups experiencing the greatest numbers of unintended pregnancies (unwanted and undetermined combined). In general, they are the very young mothers and the oldest, the mothers who have the largest number of children, those with the least education and income, and the mothers who are without husbands or who have experienced marital disruption. The large -differences between white and black mothers in the proportions of wanted and unwanted births probably reflect substantial differences in these social and economic conditions.

## TECHNICAL NOTES

## The Survey Design

The National Survey of Family Growth (NSFG) was designed to provide data on fertility, family planning, and related aspects of maternal and child health. The NSFG is a cyclic survey; that is, data are collected every few years by means of a sample survey. Fieldwork for Cycle I was carried out by the National Opinion Research Center from June 1973 through February 1974. Fieldwork for Cycle II was carried out by Westat, Inc., from January through September 1976.

A multistage probability sample of women in the household population of the conterminous United States was used in both cycles. Each time, approximately 33,000 households were screened to identify the sample of women eligible for the NSFG, i.e., women aged 15-44 years who were either currently married, pre-
viously married, or never married but with offspring presently living in the household. In households with more than one eligible woman, a random procedure was used to select only one to be interviewed. Since the interview was always conducted with the sample person, the term "respondent" is synonymous with "sample person." For Cycle II, interviews were completed with 3,009 black women and 5,602 women of other races. A detailed description of the sample design for Cycle II is in preparation.

The interview was highly focused on the respondent's marital and pregnancy histories, use of contraception, planning status of each pregnancy, intentions regarding the number and spacing of future births, use of maternal and family planning services, and a broad range of socioeconomic characteristics. The time needed to complete interviews varied greatly; interviews in Cycle II averaged about 58 minutes.

Quality control procedures were applied at all stages of the survey. These included a verification of listing completeness that brought unlisted dwelling units into the sample, a preliminary field review of completed questionnaires for possible missing data or inaccurate administration, a 10 -percent sample recheck of all households to be screened in the survey, observation of interviews in the field, and an independent recoding of a 5 -percent subsample of completed interviews.

## Reliability of Estimates

Since the statistics presented in this report are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken using the same questionnaires, instructions, interviewing personnel, and field procedures. This chance difference between sample results and a complete count is referred to as sampling error. In addition, the results are subject to nonsampling error due to respondent misreporting, processing errors, and nonresponse. It is very difficult, if not impossible, to obtain accurate measures of nonsampling errors. These types of error were kept to a minimum by the quality control procedures and other methods incorporated in the survey design and administration.

Sampling error, or the extent to which samples may differ by chance from a complete count, is measured by a statistic called the standard error of estimate. Approximate standard errors for estimated numbers and percents from Cycle I for all pregnancies, regardless of their outcome, are shown in tables I and II. Provi-

Table 1. Approximate standard errors for estimated numbers for pregnancies: 1973 National Survey of Family Growth

| Size of estimate | Relative standard error | Standard error |
| :---: | :---: | :---: |
| 100,000... | 46.4 | 46,000 |
| 250,000....................................... | 29.3 | 73,000 |
| 500,000....................................... | 20.7 | 104,000 |
| 1,000,000.................................... | 14.6 | 146,000 |
| 2,500,000.................................... | 9.2 | 230,000 |
| 5,000,000.................................... | 6.4 | 322,000 |
| 10,000,000................................... | 4.5 | 445,000 |
| 25,000,000.................................. | 2.6 | 658,000 |
| 50,000,000.................................. | 1.6 | 811,000 |

Table II. Approximate standard errors expressed in percentage points for estimated percents for pregnancies: 1973 National Survey of Family Growth

| Base of percent | Estimated percent |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 2 \text { or } \\ & 98 \end{aligned}$ | 5 or 95 | $\begin{gathered} 10 \text { or } \\ 90 \end{gathered}$ | $\begin{gathered} 20 \text { or } \\ 80 \end{gathered}$ | $\begin{gathered} 30 \text { or } \\ 70 \end{gathered}$ | $\begin{gathered} 40 \text { or } \\ 60 \end{gathered}$ | 50 |
| 700,000........... | 2.5 | 3.8 | 5.3 | 7.0 | 8.0 | 8.6 | 8.8 |
| 1,000,000......... | 2.1 | 3.2 | 4.4 | 5.9 | 6.7 | 7.2 | 7.3 |
| 3,000,000........ | 1.2 | 1.8 | 2.5 | 3.4 | 3.9 | 4.1 | 4.2 |
| 7,000,000........ | 0.8 | 1.2 | 1.7 | 2.2 | 2.5 | 2.7 | 2.8 |
| 10,000,000....... | 0.6 | 1.0 | 1.4 | 1.9 | 2.1 | 2.3 | 2.3 |
| 30,000,000....... | 0.4 | 0.6 | 0.8 | 1.1 | 1.2 | 1.3 | 1.3 |
| 70,000,000....... | 0.2 | 0.4 | 0.5 | 0.7 | 0.8 | 0.9 | 0.9 |

sional estimates of standard errors for Cycle II for white women and women of all races combined can be obtained by multiplying the standard errors for these women from Cycle I by factors of 1.09 for the latter and 1.06 for white women. Similarly, provisional estimates of standard errors for Cycle II for black women can be obtained by multiplying the standard errors for black women from Cycle I by a factor of 1.14.

The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the differences between the sample estimate and a complete count would be less than twice the standard error. The relative standard error is the ratio of the standard error to the statistic being estimated. In this report, numbers and percents which have a standard error that is more than 25 percent of the estimate itself are considered unreliable. They are marked with an asterisk to caution the user but may be combined to make other types of comparisons of greater precision.

In this report, terms such as "similar" and "the same" mean that any observed difference between two estimates being compared is not statistically significant. Similarly, terms such as "greater," "less," "larger," and "smaller" indicate that the observed differences are statistically significant. The normal deviate test with a .05 level of significance was used to test all comparisons discussed in the text. A statistically significant difference is one large enough that in repeated samples of the same size and type as this one such a large difference would be expected to be found in less than 5 percent of the
samples. Lack of comment in the text between any two statistics does not mean the difference was tested and found not to be significant.

Adjustment for nonsampling error due to nonresponse was made in two ways. Nonrespondent cases, as distinct from missing data items, were imputed by weighting for nonresponse within each primary sampling unit, stratum, and age-race category. Cases with missing data were allocated among the cells of a table in proportion to the distribution of known cases with the same characteristics.

## Definitions of Terms

Wantedness.-The definition of wantedness is based on direct responses to questions about each pregnancy a woman had conceived. For women reporting that contraceptive use was stopped prior to conception or that no contraceptive method was used in the interval preceding conception (which begins with the end of the preceding pregnancy, if there is one), the question on wantedness was phrased as follows: "Was the reason you (were not/stopped) using any method because you, yourself, wanted to become pregnant?" An affirmative response to this question indicated a "wanted" pregnancy. If the woman answered negatively, she was asked two further questions, which were also asked of all other respondents. These questions are: "At the time you became pregnant (THIS INTERVAL), ${ }^{4}$ did you, yourself, actually want to have a(nother) baby at some time?" and "As you recall, is that how you felt before you became pregnant, or did you come to feel that way later?" A subsequent question for those who did not know or care whether or not they wanted to have a(nother) baby was: "It is sometimes difficult to recall these things, but as you look back to just before that pregnancy began, would you say you probably wanted a(nother) baby sometime or probably not?"

A pregnancy is defined as "wanted at conception" if the woman reported that (a) contraception was not used or was stopped prior to conception because she wanted to become pregnant, (b) she wanted to have a(nother) baby at

[^3]some time and felt that way before becoming pregnant, or (c) she probably wanted a(nother) baby at some time. A pregnancy is defined as "unwanted" if the woman reported that she did not want to have a(nother) baby at some time or probably did not want a(nother) baby and felt that way before becoming pregnant. "Undetermined" pregnancies include those that a woman came to want sometime after conception, those that came to be unwanted sometime after conception, and those for which her feelings at the time of conception could not be reported.

Age.-Age is classified by the age of the respondent at her last birthday before the date of interview.

Race.-Classification by race was based on interviewer observation and was reported as black, white, or other. It refers to the race of the respondent.

Hispanic origin.-A respondent was classified as being of Hispanic origin if she reported her origin or descent as at least partly Mexicano, Chicano, Mexican American, Puerto Rican, Cuban, or other Spanish.

Geographic region.-Region refers to the part of the country where the respondent was living at the time of the survey classified according to U.S. Bureau of the Census definitions.

Marital status.-Persons are classified by marital status as married, widowed, divorced, separated, or never married. Married persons include those who reported themselves as married or as informally married, such as living with a partner or common-law spouse. Persons who were temporarily separated for reasons other than marital discord, such as vacation, illness, or service in Armed Forces, are classified as married. Divorced persons are those whose most recent marriage was legally dissolved and who were free to remarry. The annulled, while having the legal status of never having been married, are classified together with the divorced. The category "separated" includes those who were legally or informally separated from their most recent spouse due to marital discord. Women who were "never married" include those who never had a formal marriage and did not classify themselves in any of the preceding categories. Single women with offspring in the household were included in the NSFG.

Previous marriages.-Women are categorized
according to their response to a question on whether or not they had been married prior to their current or last marriage.

Education.-The highest year of regular schooling completed is used to define education for the woman and her current or most recent husband.

Labor force status.-A woman is categorized as being in the labor force if she was working full time ( 35 hours or more per week) or part time; had a job but was not at work because of temporary illness, vacation, or a strike; or was unemployed, laid off, or looking for work.

Poverty level.-The poverty-index ratio was calculated by dividing the total family income by the weighted average threshold income of nonfarm families whose head was under 65 years of age based on the poverty levels shown in: U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 106, "Money income in 1975 of families and persons in the United States," table A-3. This definition takes into account the sex of the family head and the number of persons in the family. Total family in-
come includes income from all sources for all members of the respondent's family. Due to a high nonresponse rate on items pertaining to the respondent's family income, the figures for poverty level must be interpreted with caution.

Religion.-Women were asked whether they were Protestant, Catholic, Jewish, or something else. "Protestant" includes most Christian groups other than Roman Catholic. The "other" category includes those reporting a religious preference other than Protestant, Catholic, or Jewish.

Parity.-Parity refers to the number of live births the respondent has had.

Fetal losses.-Fetal losses are the number of pregnancies reported by the respondent as ending in miscarriage, stillbirth, or induced abortion.

Desired family size.-A woman was classified according to the number of children she reported she would have if she could start life over again and have exactly the number of children she wanted.

| SYMBOLS |  |
| :---: | :---: |
|  |  |
|  |  |
| Quantity zero-- | - |
| Quantity more than 0 but less than 0.05 | 0.0 |
| Figure does not meet standards of reliability or precision- | * |

## Recent Issues of Advance Data From Vital and Health Statistics

No. 55. Reproductive Impaiments Among Currently Married Couples: United States, 1976 (In preparation)

No. 54. Fats, Cholesterol, and Sodium Intake in the Diet of Persons 1-74 Years: United States (Issued: December 17, 1979)

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No. 53. Office Visits Involving X-Rays, National Ambulatory Medical Care Survey: United States, 1977 (Issued: September 11, 1979)

A complete list of Advance Data From Vital and Health Statistics is available from the Scientific and Technical Information Branch.


[^0]:    ${ }^{\mathrm{I}}$ This report was prepared by Eugenia Eckard, M.S., Division of Vital Statistics.

    2National Center for Health Statistics: Wanted and unwanted births reported by mothers 15-44 years of age: United States, 1973, by M. L. Munson. Advance Data From Vital and Health Statistics, No. 9. DHEW Pub. No. (HRA) 77-1250. Health Resources Administration. Hyattsville, Md. Aug. 10, 1977.

[^1]:    3Parentheses indicate that the interviewer chose the appropriate wording for respondent.

[^2]:    ${ }^{1}$ Multiple births are counted only once.

[^3]:    4"THIS INTERVAL" means that the interviewer inserted the name of the child or dates of the pregnancy which defined the interval in question.

