Reproductive Impairments Among Married Couples: United States

Statistics based on data collected in 1965 and 1976 are presented on the fecundity status and number of spontaneous pregnancy losses married couples had had as of 1976. Data are also presented on the infertility status of couples in 1965 and 1976. The statistics are shown by age, race, and selected socioeconomic characteristics.

Data From the National Survey of Family Growth Series 23, No. 11

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Symbols used in tables

- - -   Data not available

. . .   Category not applicable

-   Quantity zero

0.0   Quantity more than zero but less than 0.05

Z   Quantity more than zero but less than 500 where numbers are rounded to thousands

*   Figure does not meet standards of reliability or precision

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Reproductive Impairments Among Married Couples: United States

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Introduction

The National Survey of Family Growth, a periodic survey conducted by the National Center for Health Statistics, is designed to provide information on fertility, family planning, and aspects of maternal and child health that are closely related to childbearing. The National Fertility Study, a predecessor of the National Survey of Family Growth, was conducted by the Office of Population Research of Princeton University and was designed to provide similar kinds of data.

This report presents final data from these surveys on reproductive impairments—that is, involuntary conditions that make it difficult or impossible to have children or additional children—among married couples in the United States in 1976 and 1965. These data supersede those published in a preliminary report using a different classification scheme.[1] The data in this report are probably the most comprehensive set of national estimates ever published on trends and differentials in reproductive impairments in the United States.

Two classification schemes are used here to measure reproductive impairments: fecundity status, which is a demographic concept and makes the more complete use of the data available in the 1976 survey; and infertility status, which is a medical concept, and permits comparable measurement of trends between 1965 and 1976. Before this report and a related article were published,[2] there were no reliable national estimates of the prevalence of infertility in the United States.

Reproductive impairments have important effects on birth rates as well as on the lives of the couples affected.[3] Some couples are unable to have any children, and others are not able to have as many as they would like. Data on reproductive impairments may be useful in evaluating the plausibility of birth expectations and birth rate projections; in explaining trends and differences in childlessness; in assessing the demand for adoption; and in estimating the number of couples in need of medical treatment for reproductive impairments, sometimes called "infertility services."[4]

In this report no attempt is made to test causal hypotheses or theories about the causes of impairments. Nor is it attempted to study the demographic and health consequences of impairments in detail. However, these issues have guided the selection of the variables for analysis and presentation; and the data presented here are considered fundamental background for such analyses.

Summary of principal findings

This report presents final data on reproductive impairments. It includes data on the fecundity status of married couples in the United States in 1976 and on trends in infertility among married couples between 1965 and 1976. The data are based on personal interviews with two nationally representative samples of currently married women 15–44 years of age: the 1976 National Survey of Family Growth, or NSFG, and the 1965 National Fertility Study, or NFS.

In this report "fecundity status" is a characteristic of a currently married couple at the date each woman was interviewed. Unless classified by parity (the number of children ever born), each category of fecundity status includes couples with *any number of children* (from none to many). Fecundity status is a demographic concept. It is used extensively here (tables 1–14) because it makes use of all of the questions on reproductive impairments in the 1976 NSFG. About 19 percent of married couples (or 5.1 million) were contraceptively sterile in 1976. Another 10 percent, or 2.7 million, were surgically sterile for noncontraceptive reasons; 16 percent, or 4.3 million, had nonsurgical fecundity impairments. About 56 percent, or 15.4 million, were fecund—that is, able to have a baby. Most of the couples who were not fecund had one child or more and did not want additional children.

One definition of the population in need of medical services to help them have children is those couples who have impaired fecundity *and* who want children or additional children. About 47 percent of the 4.3 million couples with fecundity impairments, or about 2.0 million, wanted to have a baby or another baby, including about 840,000 who had no children, about 641,000 who had one child, and about 556,000 who had two or more.

The percent of married couples with impaired fecundity ranged from 9 percent among married teenagers to 20 percent among couples with wives 40–44 years of age in 1976. Because the proportion of couples surgically sterile also increased sharply with age, the percent fecund decreased from 90 percent

among married teenage women to 31 percent of married women 40–44 years of age.

Black couples were substantially more likely to have impaired fecundity than white couples were (23 percent compared with 15 percent) in 1976. Black couples were less likely to be surgically sterile, however, so the proportion fecund was about 56 percent for both white and black couples. The proportion of all couples who had no children *and* who had impaired fecundity was about 4 percent for both white and black couples.

Fecundity status in 1976 is also shown by education, religion, geographic region, labor force status, occupation of the wife, occupation of the husband, and Hispanic origin of the wife. The percent fecund ranged from 47 percent in the lowest educational group to 63 percent in the highest. White Catholic couples were more likely to be classified as fecund than white Protestant couples (61 percent compared with 52 percent). In the Northeast the percent with impaired fecundity was higher, and the percent surgically sterile was lower, than in the other three regions. There are techniques, including "synthetic estimation," that may be used to make estimates of the fecundity status or infertility status of married couples for States and local areas. The data and assumptions necessary to make such estimates are briefly noted in this report.

Currently married women were also classified by the number of spontaneous pregnancy losses—miscarriages or stillbirths—they reported. About 22 percent of wives reported one or more. Among wives 35–44 years of age, 31 percent reported one or more.

Because fully comparable data on fecundity status could not be obtained from other surveys, a final section of this report contains statistics on couples classified by "infertility status" in 1965 and 1976. "Infertility status" (tables 15 and 16) contains three categories: "surgically sterile," "infertile," and "fecund."

The percent of couples who were surgically sterile (for contraceptive or noncontraceptive reasons) increased from 16 percent in 1965 to 28 percent in 1976.

The increases in surgical sterility were widespread, but they were largest among white couples, couples with wives 30–44 years of age, and wives with 3 or more births. In the last-named group only 22 percent were surgically sterile in 1965, compared with 50 percent in 1976.

"Infertile" couples are those with any number of children who have never had a sterilizing operation and who, for at least 12 months immediately before the interview, have been continuously married, have not used any contraception, and have not become pregnant. Infertility is a widely used medical concept, but there were no reliable national estimates of it before this report and a related article.[2] About 1 in 10 couples were classified as infertile in both 1965 and 1976. However, the percent infertile increased from 5 to 7 percent among the younger couples and decreased from 16 to 13 percent among couples 30–44 years of age. Among couples 15–29 with no children or one child, the data suggest that the percent infertile increased from 6 to 9 percent. Among younger black couples, the proportion infertile more than doubled, from 5 to 12 percent.

The percent of couples classified as "fecund" decreased between 1965 and 1976 in almost all age, race, and parity groups, although the reductions in a few of these groups were not statistically significant. These reductions in the percent fecund, which were largest at the later ages and highest parities, were primarily a result of increases in the percent surgically sterile.

Background

In this section, the design of the National Survey of Family Growth (NSFG) is discussed, along with some other important background. The design of the 1965 National Fertility Study is discussed in the section "Trends in infertility." The 1976 NSFG was based on personal interviews with a multistage area probability sample of 8,611 women 15–44 years of age in the conterminous United States. Women were eligible for inclusion in the sample if they were currently married, previously married, or never married but had offspring living with them in the household. Between January and September of 1976, 3,009 black women and 5,602 women of other races were interviewed.

This report is based on data collected from currently married women. In 1976, 6,482 of these women were interviewed. The interview focused on the respondents' marital and pregnancy histories, their use of contraception, whether each pregnancy was planned at the time of conception, their use of maternal care and family planning services, reproductive impairments, and a wide range of social and economic characteristics.

Characteristics such as age, race, Hispanic origin, parity, education, geographic region, labor force status, and religion refer to the women interviewed. In this report, fecundity status and infertility status refer to the *couple* as of the date the woman was interviewed. For convenience in writing, in this report, the term "black couples" refers to couples with black wives; and "couples 30–44 years of age" refers to couples with wives 30–44 years of age, regardless of the race or age of the husbands in these couples.

The statistics are estimates for the national population from which the sample was drawn. Because the estimates are based on a sample, they are subject to sampling variability. Also, nonsampling errors may have been introduced during data collection, processing, and analysis, although quality control measures were used at each stage to minimize error. Further discussion of the survey design, definitions of terms, and sampling variability can be found both in appendixes I and II of this report and in "National Survey of Family Growth, Cycle II: Sample Design, Estimation Procedures, and Variance Estimation," Series 2, Number 87.[5]

In this report the term "similar" means that any observed difference between two estimates is not statistically significant. Terms such as "greater," "less," "larger," and "smaller" indicate that the observed differences are statistically significant at the 5-percent level, using a 2-tailed *t*-test with 40 degrees of freedom. Statements about differences that are qualified by using the phrases "the data suggest" or "some evidence" indicate that the difference is significant at the 10-percent level but not at the 5-percent level.

Following this summary and background, this report contains sections describing how couples were classified by fecundity status, comparisons with other data, a detailed discussion of the findings for 1976, differentials in pregnancy loss, reproductive impairments and "infertility problems," and trends in infertility. Appendixes I–III contain technical notes on both surveys, definitions of terms, and the 1976 survey questions on reproductive impairments.

Classification by fecundity status

Fecundity status was measured by a series of questions. All currently married couples were classified into one of six categories of fecundity status: contraceptively sterile, noncontraceptive surgical sterility, nonsurgically sterile, subfecund, long interval, or fecund. In some tables and charts of this report the nonsurgically sterile, the subfecund, and those with a "long interval" since marriage or last birth have been grouped into the overall category of "impaired fecundity."

The data for 1976 were obtained by asking respondents whether it was possible or impossible, and difficult or not difficult, for them to have a baby or another baby. If the respondent said it was difficult or impossible, she was asked why. With a few exceptions (explained below), respondents who said that it was impossible for them to have a baby or another baby were classified as sterile, and those who said it was difficult were classified as subfecund. The first question on reproductive impairments was the following:

> It is physically impossible for some couples to have children. As far as you know, it is possible or impossible for you and your husband to conceive a(nother) baby, that is, to get pregnant (again)?

Respondents who replied that it was impossible for them to have a baby or another baby were asked:

> What is the reason that you are unable to have a(nother) baby?

If the response was that they were sterile because of a surgical procedure, they were then asked:

> Was one reason for the operation because you had all the children you wanted?

Contraceptively sterile

This category consisted of women or their current husbands who had sterilizing operations at least partly because they had all the children they wanted. In 1976, nearly 19 percent of the couples in which the wife was
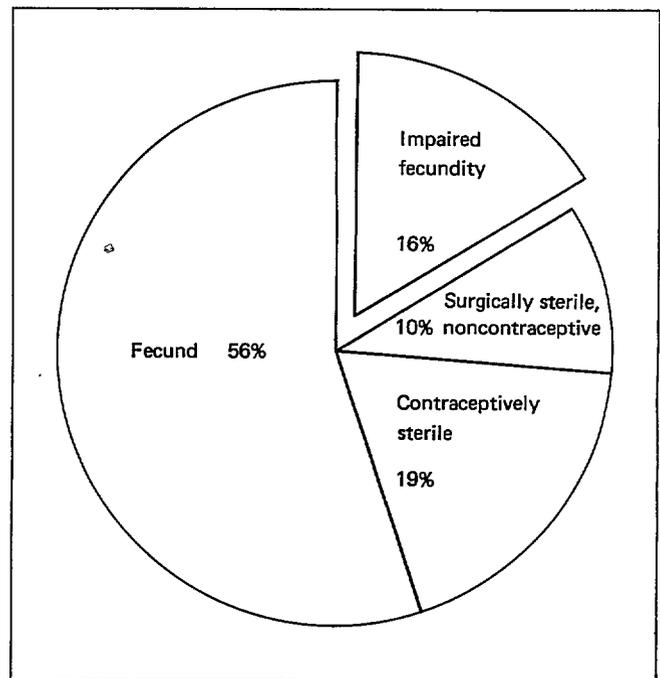
Figure 1. Percent distribution of all currently married couples with wife 15–44 years of age by fecundity status: United States, 1976

15–44 years of age were contraceptively sterile (table 1 and figure 1). (This percent differs slightly from a preliminary estimate published in *Advance Data* Number 36,[6] because of revisions made in the data. See reference 1.) For this report these couples are not classified as having impaired fecundity because they have ended their fecundity voluntarily—that is, as a method of family limitation.

Surgically sterile, noncontraceptive

This category consists of women or their current husbands who had a surgical sterilization (such as a hysterectomy) for therapeutic reasons—*not* because they had had all the children they wanted. About 2.7

million couples, about 10 percent, were classified as surgically sterile for noncontraceptive reasons in 1976.

Nonsurgically sterile

This category is composed of women who said it was impossible for them to have a baby or another baby for some reason other than a surgical sterilization such as accident or illness. About 1 percent, or 368,000 couples, were classified as nonsurgically sterile in 1976. In an earlier report[1] nonsurgically sterile and noncontraceptive surgically sterile couples were shown as one group—the "noncontraceptively sterile." However, because surgical sterility and nonsurgical impairments are different types of medical conditions, these two groups are shown separately in this report.

Subfecund

For couples in this category, it is difficult but it may be possible to conceive and/or carry a pregnancy to term. Most women classified as subfecund responded affirmatively to the following question:

> Some people are able to have a(nother) baby, but they have difficulty getting pregnant or holding onto the baby. As far as you know, is there any problem or difficulty for you and your husband to conceive or deliver a(nother) baby?

An estimated 2.9 million couples, about 10 percent, were classified as subfecund in 1976 (table 1).

Long interval

This category consists of currently married couples who were not surgically sterile and who, during the 3 years of continuous marriage before the interview, did not use contraception and did not have a pregnancy.

Many of these couples were presumably sterile, but some might conceive in the future.[7] In 1976, 1.1 million, about 4 percent, of currently married couples were classified as having a long interval (table 1).

Impaired fecundity

This category includes nonsurgically sterile couples, subfecund couples, and those with long intervals. In 1976 about 16 percent or about 4.3 million couples had impaired fecundity, meaning that it was physically difficult or impossible for them to conceive or carry to term a baby or another baby (figure 1).

Fecund

In tables 1–14 of this report "fecund" means that there was no evidence at the time of the interview that the couple had a problem in conceiving or delivering a baby. The women interviewed reported no impairments and stated that it was possible for them to have a baby, that they had no difficulty conceiving or carrying to term, and that they had used contraception or been pregnant some time in the 3 years of continuous marriage preceding the interview. About 15.4 million or 56 percent of the currently married couples were classified as fecund in 1976 (figure 1). As explained in appendix II, this definition differs from the use of the term "fecund" in some other reports[6] where the subfecund and long interval couples are not classified separately.

The passage of time, not using contraception, or an attempt to have children increase the likelihood that couples will discover a fecundity impairment.[8] For example, couples who have ended their fecundity by contraceptive sterilization or who have always used contraception effectively may have undiagnosed impairments that would have significantly reduced the chances of their having children in the future.

Comparisons with other data

Several differences between this report and a preliminary report[1] on this subject should be noted. The most important difference is that the category "noncontraceptively sterile" in the earlier report has been divided in this report to distinguish between the "nonsurgically sterile" and "surgically sterile—noncontraceptive," which are quite different types of medical conditions. The category "all impaired" in the previous report[1] equals the sum of the "impaired fecundity" and the "surgically sterile—noncontraceptive" categories in the present report.

There have been a few other studies of reproductive (or fecundity) impairments in the United States. However, the statistics in none of these can be considered completely comparable to the statistics in this report. (The measurement of trends is discussed later in this report.) The 1955 and 1960 Growth of American Families Studies both included studies of fecundity impairments.[8,9] However, at least three factors make meaningful comparisons difficult or impossible:

- The samples in the earlier studies were more limited in scope than in the National Survey of Family Growth (NSFG).

- Different questions on fecundity were asked and different classification schemes were used.

- There was a dramatic increase in the use of contraceptive sterilization in the 1960's and 1970's.

Other factors that may affect these comparisons include changes in the time of first use of contraception and changes in the age and marital status composition of the female population 15–44 years of age. In particular, it should be noted that the term "subfecund" in the earlier studies included all couples not classified as fecund. That meaning of "subfecund" included all impaired fecundity plus all surgical sterility, both contraceptive and noncontraceptive. As explained earlier, the term "subfecund" is used in a much more limited sense in this report.

McFalls[3,10] has published two useful reviews of the literature on reproductive impairments, which he calls "subfecundity." Neither review contains original data, however.

The Hospital Discharge Survey of the National Center for Health Statistics samples records of patients discharged from non-Federal short-stay hospitals and classifies the sampled records by diagnosis, including pelvic inflammatory disease, uterine fibroma, and other conditions.[11] These data differ from those in NSFG because not all such conditions require hospitalization, and not all affect fecundity. Also, the data in NSFG are not diagnostic but self-reported. Finally, the Hospital Discharge Survey data are incidence estimates (the number of cases occurring in a particular year), while the NSFG data in this report are prevalence estimates (the number of cases in the population *as of* a given year, regardless of when they first occurred).

Findings

Age, parity, and years since first marriage

Tables 1 and 2 show the distribution of currently married couples with wives 15–44 years of age in 1976, by fecundity status and selected characteristics of the wife.

As seen in table 1, the prevalence of impaired fecundity—the nonsurgically sterile, subfecund, and long interval categories combined—increased with each 10-year age group, from 11 percent at 15–24 to 19 percent at 35–44 years of age. This difference by age was sharpest in the "long interval" category, which grew from 1 percent at 15–24 to 8 percent at 35–44 years of age, accounting for nearly all the net increase in the "impaired fecundity" category.

The proportion contraceptively sterile increased sharply with age from 4 percent at 15–24 to 28 percent at 35–44 years of age. Similarly, the proportion surgically sterile for noncontraceptive reasons rose from less than 1 percent at 15–24 years of age to 19 percent at 35–44. Thus the proportion surgically sterile was about 4 percent at 15–24 and 47 percent at 35–44 years of age.

This 43-percentage point rise in surgical sterility accounted for over four-fifths of the 51-percentage point decrease in the percent fecund, from 85 percent at 15–24 to 34 percent at 35–44 years of age. The drop in the proportion fecund occurred in every 5-year age group, from 90 percent among married teenagers to 31 percent of those 40–44 years of age (figure 2).

Among couples with impaired fecundity, the distribution of the types of impairments changes with age. For example, at 15–24 years of age subfecund couples accounted for about nine-tenths of all couples with impairments; but for those 35–44, subfecundity accounted for only about half, as the long interval subcategory increased from less than one-tenth to about four-tenths of the total impaired fecundity category (table 1).

The apparent drop in the percent subfecund
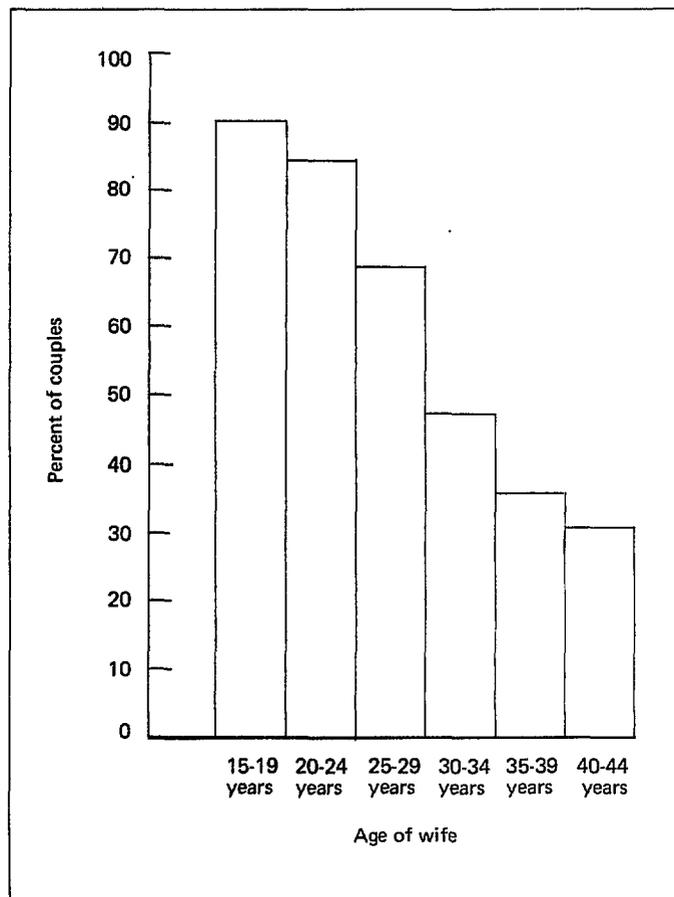
Figure 2. Percent fecund among currently married couples with wife 15–44 years of age, by age: United States, 1976

between 25–34 and 35–44 years of age (from 12 to 9 percent) may reflect a shift in fecundity status over the life cycle from subfecund to long interval or surgically sterile; or it may reflect, among older women, a lower prevalence of subfecundity when they were younger.

The percent surgically sterile increased in each category of years since first marriage, from 3 percent of those married less than 5 years to 50 percent of those married 15 years or more before the date of interview

(table 1). The percent with impaired fecundity increased from 10 percent at less than 5 years to 16 percent at 5–9 years, but there was no significant change in the other two categories of years since first marriage.

Women are classified by age and parity in table 2. At each parity the percent surgically sterile for noncontraceptive reasons increased as age increased. Thus being surgically sterile for noncontraceptive reasons was associated with age independently of parity.

At parities zero, one, and two, the percent with impaired fecundity increased with age. For women with three or more children, however, this was not true. The percent fecund was higher at 15–24 than at 35–44 years of age at each parity (although this difference was not significant at parity three or more). Contraceptive sterility also tended to increase with age within parity groups, but some of the differences were not significant.

Race

Tables 3 and 4 show data for white and black couples, respectively. The percent contraceptively sterile was lower for black couples than for white couples in 1976 (13 percent compared with 19 percent). This difference primarily reflects a much lower prevalence of male contraceptive sterilization (2 percent compared with 10 percent) among black than among white husbands.[12] The prevalence of female operations for both contraceptive and noncontraceptive reasons was similar by race. The percents surgically sterile for noncontraceptive reasons were not significantly different by race overall or in any 10-year age group.

Black couples were much more likely to have impaired fecundity than white couples were (23 percent compared with 15 percent). In the age groups 15–24 and 35–44, black couples were about 10 percentage points more likely to have impaired fecundity. The difference at 25–34 years of age was only about 4 percentage points and was not statistically significant. Most of the difference among wives 15–24 years of age was in the subfecund category (9 percent of white wives compared with 16 percent of black wives), while most of the difference among wives 35–44 years of age was in the long interval category (7 percent of white and 14 percent of black wives).

Among black couples surgical sterility was *less* common and impaired fecundity *more* common than among white couples. But these two differences balanced out, so that the proportion fecund was about 56 percent for both groups (figure 3).

At parities one, two, and three or more, white couples were more likely than black couples to be contraceptively sterile. In each parity group, black couples were more likely than white couples to have impaired fecundity (tables 3 and 4).
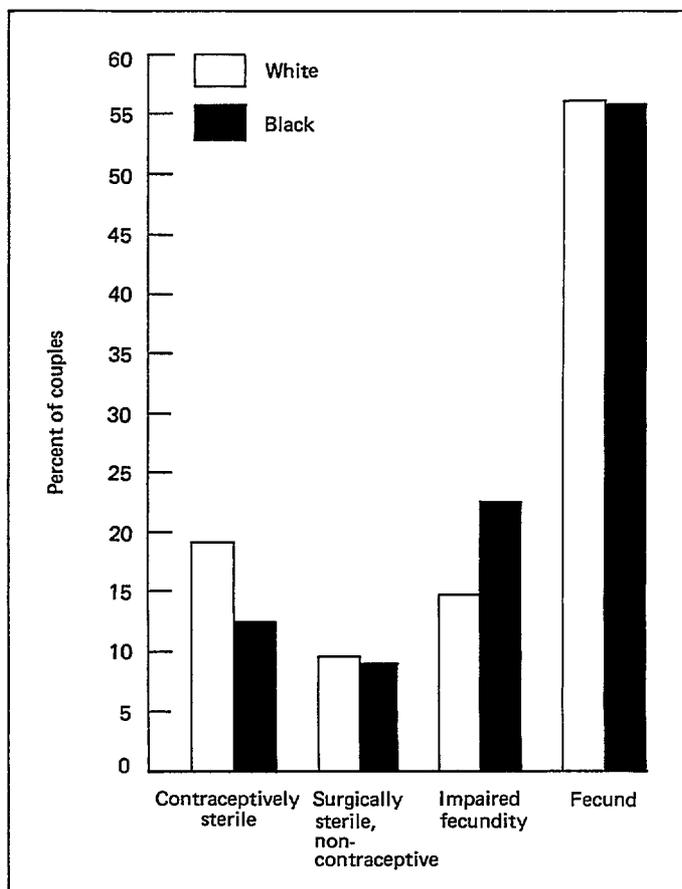
Figure 3. Percent distribution of currently married couples with wife 15–44 years of age by fecundity status and race: United States, 1976

Because parity differs by race, and because the percent with impaired fecundity differs by parity, it is important to control statistically for parity when comparing the fecundity of white couples with that of black couples. Black wives 15–44 years of age had a larger average number of children than white wives had. For example, 11 percent of black couples had no children by the date of interview, compared with 19 percent of white couples; and 39 percent had 3 or more children compared with 33 percent of white couples (table A).

About 35 percent of black wives with no children (parity zero) had impaired fecundity, compared with 21 percent of white wives with no children (tables 3 and 4). But as noted above, a smaller proportion of black wives had no children. So the proportion of all couples who had no children *and* impaired fecundity was about 4 percent for both white couples and black couples (table A).

A similar pattern was evident for noncontraceptive surgical sterility. About 7 percent of black couples with no children were surgically sterile for noncontraceptive reasons, compared with only 4 percent of white couples with no children (tables 3 and 4). However, about 1 percent of all couples of each race were childless *and* surgically sterile for noncontraceptive

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Table A. Percent distribution of currently married couples with wife 15–44 years of age by parity and fecundity status, according to race: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

| Parity and fecundity status	All races[1]	White	Black
All parities	Percent distribution		
Total	100.0	100.0	100.0
Surgically sterile:			
Contraceptive	18.5	19.3	12.6
Noncontraceptive	9.6	9.7	9.0
Impaired fecundity	15.7	14.9	22.5
Fecund	56.1	56.1	55.9
Parity 0			
Surgically sterile:			
Contraceptive	*0.3	*0.3	*0.1
Noncontraceptive	0.8	0.8	*0.8
Impaired fecundity	4.1	4.0	3.9
Fecund	13.9	14.5	6.4
Parity 1			
Surgically sterile:			
Contraceptive	0.8	0.8	*0.2
Noncontraceptive	1.0	1.0	*1.5
Impaired fecundity	4.1	3.8	6.6
Fecund	14.4	14.2	16.0
Parity 2			
Surgically sterile:			
Contraceptive	6.5	7.0	2.4
Noncontraceptive	2.5	2.4	2.4
Impaired fecundity	3.5	3.3	4.8
Fecund	15.3	15.3	16.5
Parity 3 or more			
Surgically sterile:			
Contraceptive	11.0	11.2	10.0
Noncontraceptive	5.4	5.5	4.3
Impaired fecundity	4.0	3.8	7.2
Fecund	12.5	12.1	17.0

[1] Includes white, black, and other races.

reasons. Thus if being childless and having impaired fecundity is one definition of infertility problems, these problems were not more common among black couples than among white couples in 1976. However, if having a fecundity impairment at parity one, two, or three or more is also considered an infertility problem, these problems were more common among black than among white couples.

In each category of years since the wife's first marriage, black couples were more likely than white couples to have impaired fecundity, although the differences at 0–4 and at 10–14 years were not statistically significant. At 5 years or more, the data suggest that white couples were more likely to be contraceptively sterile.

Investigating the causes of the larger proportion of black than of white couples with impaired fecundity is an extremely complex matter, beyond the scope of this report, but it is possible to list some of the factors that should be included in such an analysis. Among the risk factors mentioned by McFalls[3] known or suspected to be related to impaired fecundity in general are such genetic factors as sickle cell anemia and certain related conditions; what McFalls calls "psychopathology,"

including alcohol and drug abuse; nutritional deficiencies; infectious diseases such as gonorrhea, genital herpes, and non-gonococcal urethritis and cervicitis; and infections after childbirth or after poorly performed abortion. If conditions known to be associated with impaired fecundity were shown to be more common among black than among white couples in the relevant age groups, a plausible causal hypothesis could be suggested.

The complexity of such a test may be suggested by listing, as an example, some of the factors to be considered with respect to infections after childbirth or poorly performed abortion. These factors probably would include, among others, the larger average number of children ever born to black women than to white women, especially at younger ages[13] (a larger proportion of which were unwanted at the time they were conceived[14,15]); less adequate health care, especially prenatal care, among black women;[16] a younger average age of black women at first birth;[17] more closely-spaced births to black women;[18] and higher abortion rates among black women.[19]

Socioeconomic characteristics and fecundity status

Tables 5–7 contain data on the fecundity status of currently married couples by selected socioeconomic characteristics.

Education

There was little variation in the proportion with impaired fecundity by education; 19 percent of women with less than a high school diploma had impaired fecundity compared with 15 percent of those with more than a high school education (table 5). Both types of surgical sterility decreased as education increased. Primarily because of the differences in surgical sterility by education, the percent fecund increased with education, from 47 percent in the lowest to 63 percent in the highest education group.

For white women (table 6) the differences in the percent with impaired fecundity by education were small and not statistically significant. For black wives, however (table 7), 32 percent of those with less than a high school education had impaired fecundity compared with 19 and 17 percent in the other two education groups of black women. The proportion for black women with less than a high school education (32 percent) was almost twice that for white women in the same education group. In the upper two education groups, the differences by race were much smaller and not statistically significant.

Poverty level income

Special caution should be used in interpreting small differences between poverty level income groups

because of the unusually large amount of missing data on this characteristic (see appendix II). There was no significant difference between the lowest and the highest income group in either type of surgical sterility (table 5). This was also true for white women (table 6) and black women (table 7) separately. The percent with impaired fecundity varied little from below the poverty level to 200–299 percent of poverty level, but it was slightly higher—17 percent—in the highest income group (table 5).

Among couples with incomes of 300 percent or more of poverty level, 17 percent of white and 29 percent of black couples had impaired fecundity (tables 6 and 7). This difference is related to the finding that 19 percent of white but only 10 percent of black couples in the highest income group were contraceptively sterile.

Religion

Protestant couples were much more likely to be contraceptively sterile (22 percent compared with 13 percent) and slightly more likely to be surgically sterile for noncontraceptive reasons, than Catholic couples were. Protestant couples were slightly less likely to have impaired fecundity and substantially less likely to be fecund (53 percent compared with 61 percent, table 5). The findings for white women were very similar in all four categories of fecundity status (table 6).

Region

The percent of couples with both types of surgical sterility was lower in the Northeast than in the other three regions. Conversely, the percent with impaired fecundity and the percent fecund were both higher in the Northeast than in the other three regions (table 5). These results were also found for white women (table 6). (The difference in surgical sterility for noncontraceptive reasons between the Northeast and the West was significant at the 10-percent level for all women and not significant for white women.)

Because the percent surgically sterile was lower and the percent with impaired fecundity higher for Catholic than for Protestant women, the results by region might be explained by the higher percent of couples in the Northeast who were Catholic than in the other regions. About 51 percent of white wives in the Northeast in 1976 were Catholic compared with 27 percent in the North Central and the West and 19 percent in the South. This interpretation is supported by the finding that there were no significant differences for black wives, almost 90 percent of whom were Protestant, between the Northeast and the other regions (table 7).

In each region except the Northeast white women were substantially more likely than black women to be contraceptively sterile. This difference by race ranged from about 1 percentage point in the Northeast to about 13 percentage points in the West (tables 6 and 7) and is probably related to the difference in contraceptive sterility between Protestant and Catholic women discussed earlier.

There were no statistically significant differences in fecundity status between women in and out of the labor force (table 5). This was also found for white women and black women separately (tables 6 and 7).

Occupation

Table 8 shows currently married couples in 1976 by the occupation of the respondent and her husband. The occupational classification used in this report is a socioeconomic grouping and was not designed to measure exposure to health hazards in the workplace. Differences between occupational groups may reflect age, race, and parity differences as well as the effects of working in particular occupations.

Looking first at the data by occupation of the wife, professional workers were less likely to be contraceptively sterile and less likely to be surgically sterile for noncontraceptive reasons than all women surveyed were. As a result they were more likely to be fecund (62 percent compared with 56 percent).

Managers were more likely to be surgically sterile for noncontraceptive reasons than were women in the total group (18 percent compared with 10 percent) and less likely to be fecund (46 compared with 56 percent). Operatives were also more likely to be surgically sterile for noncontraceptive reasons than were women in the total group, and less likely to be fecund. Household workers were less likely to be contraceptively sterile (7 percent compared with 19 percent) and much more likely to have impaired fecundity (37 percent compared with 16 percent). None of the other differences between the total and particular occupational groups was statistically significant.

The data by occupation of the husband tend to show a similar picture—that is, the same occupational groups tended to have significantly different fecundity status. Couples in which the husband was a professional worker were more likely to be fecund and less likely to be surgically sterile than were couples in the total group. Couples in which the husband was a manager were more likely to be surgically sterile and less likely to be fecund than were couples in the total group.

Differentials in reported spontaneous pregnancy losses

Respondents in the NSFG were asked if they had had any pregnancies in addition to those ending in live births. For each such pregnancy, they were asked:

When did that pregnancy end?
How many months were you pregnant at the time?

and

How did that pregnancy end?

The answers to the last question were classified as "miscarriage," "stillbirth," or (induced) "abortion." Pregnancies reported as ending in "miscarriage" or "stillbirth" are shown in the report as "reported spontaneous pregnancy losses."

The reporting of spontaneous pregnancy losses in the NSFG was comparable to that in other surveys of the same type. Leridon[20] has reported the results of a number of surveys of women in the reproductive ages in various parts of the world. The results from the NSFG were similar: about 14 percent of pregnancies (excluding induced abortions) ended in a spontaneous pregnancy loss; there was an increase (not statistically significant) in the pregnancy loss rate with increasing age of mother; and the loss rate for women whose most recent previous pregnancy had ended in a pregnancy loss was about double that for those whose pregnancy had ended in a live birth (table B).

Currently married women are shown in tables 9-12 by the number of reported spontaneous pregnancy losses they had had by the date of interview. About 15 percent of married women had had one pregnancy loss, about 4 percent had had two, and about 3 percent had had three or more (table 9).

The percent of wives who had had one or more pregnancy losses increased from 12 percent of wives 15-24 years of age to 31 percent of wives 35-44 years of age (figure 4), and from 11 percent of wives with no children ever born (parity zero) to 31 percent of wives with three or more children (table 9).

The results by age and parity described here were also found for white wives (table 10). For black wives (table 11) results were similar but many of the differences were not statistically significant. Very few of the differences by race (tables 10 and 11) were statistically significant.

Differences by Hispanic origin of the wife in the percent who had had one or more pregnancy losses were not statistically significant (table 9).

Tables 9-11 also contain statistics on pregnancy losses by the fecundity status of the respondent. Only about 15 percent of fecund couples had had one or more pregnancy losses, compared with 25 percent of contraceptively sterile couples, 38 percent of women surgically sterile for noncontraceptive reasons, and 33 percent of couples with impaired fecundity. These differences are probably related to the age composition of the fecundity status groups since fecund women were younger, on average, than other women.

Table C shows the proportion of women who have had one or more pregnancy losses. This table excludes women who have never been pregnant or who are currently pregnant with their first pregnancy because they cannot have had a pregnancy loss. None of the differences by race in table C was statistically significant. The percent of women who had had one or more pregnancy losses increased from 19 percent at 15-24 years of age to 33 percent at 35-44 years of age. However, it is likely that part of this difference is due to a larger average number of pregnancies among women 35-44 years of age.

Table 12 shows currently married couples by occupation and the number of spontaneous pregnancy losses the woman had had. The results by occupation

Table B. Percent of pregnancies (excluding induced abortions) to currently married women 15-44 years of age ending in a spontaneous pregnancy loss and standard error of the percent, by age and outcome of previous pregnancy: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

| Age and outcome of previous pregnancy	Percent	Standard error
Total	14.1	0.6
Age		
15-24 years	12.7	0.7
25-34 years	14.3	1.0
35-44 years	17.4	4.3
Outcome of previous pregnancy		
Spontaneous pregnancy loss	28.4	2.3
Live birth or induced abortion	12.8	0.8

Figure 4. Percent of currently married women 15-44 years of age with 1 or more reported spontaneous pregnancy losses, by age: United States, 1976

Table C. Number of currently married women 15–44 years of age with 1 or more completed pregnancies,[1] and percent with 1 or more pregnancy losses, by age, according to race: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

Age	All races[2]		White		Black	
	Women with 1 or more completed pregnancies	Women with 1 or more pregnancy losses	Women with 1 or more completed pregnancies	Women with 1 or more pregnancy losses	Women with 1 or more completed pregnancies	Women with 1 or more pregnancy losses
	Number in thousands	Percent	Number in thousands	Percent	Number in thousands	Percent
All ages	23,101	25.9	20,677	25.9	1,991	26.3
15–24 years	3,698	18.8	3,230	18.5	407	22.8
15–19 years	548	23.0	466	21.8	75	*25.1
20–24 years	3,151	18.1	2,764	17.9	332	22.3
25–34 years	10,535	22.8	9,453	22.8	859	22.3
25–29 years	5,223	18.4	4,657	18.7	444	15.3
30–34 years	5,311	27.0	4,795	26.8	415	29.8
35–44 years	8,869	32.6	7,994	32.6	725	32.9
35–39 years	4,609	30.7	4,145	30.1	357	37.9
40–44 years	4,259	34.6	3,849	35.2	368	28.1

[1] Excludes women who had never been pregnant and those who were currently pregnant with their first pregnancy at the date of interview.
[2] Includes white, black, and other races.

of the wife indicate that women in service occupations were more likely to have had one or more pregnancy losses than the total group (27 percent compared with 22 percent).

Couples in which the husband was a professional worker were less likely than other couples to have had one pregnancy loss. Couples in which the husband was in sales or was a farmer were less likely than other couples to have had two pregnancy losses. There were no other statistically significant differences in table 12.

Reproductive impairments and "infertility" problems

Fecundity impairments per se are important for demographic and public health reasons. For other uses, however, it may be important to define a population that desires medical treatment to help them have children, or more children—including couples who have difficulty conceiving, those who have a high risk of miscarriage, and those for whom pregnancy may be dangerous to the woman's life or health. Tables 13 and 14 illustrate one way to define the population desiring medical treatment to help them have children. They show the number of married couples in selected fecundity status groups and the percent in each who wanted to have a baby at some time in the future. (Wånting to have a baby in the *future*, as discussed here, should not be confused with the "wantedness" of *past* births, discussed in other NSFG reports.[14,15])

About 47 percent (an estimated 2,037,000 couples) of all wives with impaired fecundity wanted to have a baby; but a large majority of *childless* couples with impaired fecundity (75 percent) wanted to have at least one child; and 57 percent of couples with one child wanted to have another. The data by parity indicate that about 840,000 of those couples with impaired

fecundity who wanted children had no children (parity zero), 641,000 had one child, 323,000 had two children, and 233,000 had three or more (figure 5).

The percent of wives with impaired fecundity who wanted to have a baby at some time in the future declined sharply with parity and age, from 75 percent of those with no children to 21 percent of those with three or more, and from 81 percent of wives 15–24 years of age to 21 percent of wives 35–44 years of age. There was no significant difference in these percents between white and black women, but the data suggest that Hispanic wives with impaired fecundity were more likely than other wives to want a baby. These patterns were generally present within the categories subfecund, nonsurgically sterile, and long interval. The exceptions were not statistically significant. However, considerable caution should be used in interpreting differences in the long interval and nonsurgically sterile categories because of the small number of sample cases involved.

Couples who were surgically sterile for noncontraceptive reasons in 1976 are also shown in table 13. These women were asked:

> Even though it is unlikely or impossible for you to have a(nother) baby, would you like to have a(nother) baby?

About 41 percent of the estimated 2,652,000 couples— about 1,098,000—wanted to have a baby. The differences in this percent by the characteristics in table 13 were less regular than for those with impaired fecundity, and few of the differences were statistically significant.

In table 14 couples with impaired fecundity are shown by age and race and by parity and race. For both white and black women, the percent of couples 15–29 years of age with impairments who wanted a baby was sharply higher than for those 30–44 years of
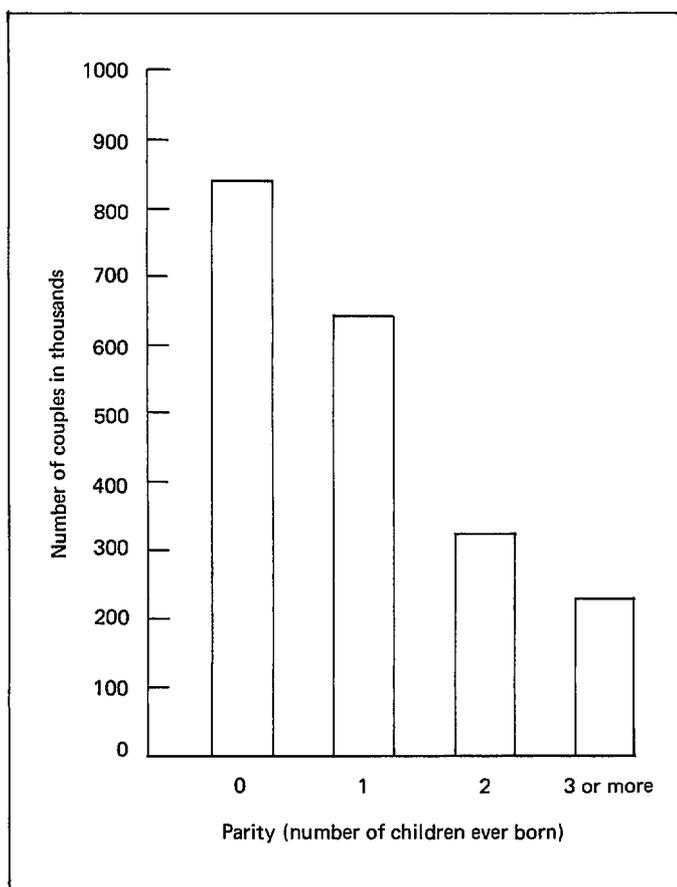
Figure 5. Number of currently married couples with impaired fecundity who want a baby or another baby, by parity: United States, 1976

age. The findings were similar by parity: for both white and black wives, those who had no children were much more likely to want a baby than those who had three or more.

As in table 13, the patterns in table 14 for couples who were surgically sterile for noncontraceptive reasons were less regular than for those with impaired fecundity.

The NSFG was not designed to estimate statistics for areas smaller than the four major geographic regions, and surveys of areas smaller than that rarely collect information like the data in this report. Thus, for estimates for smaller areas of the number of couples with impaired fecundity, or of the number with impaired fecundity who want a future baby, either a special-purpose survey or some kind of estimation technique used with national data would have to be employed. In combination with the data in this report, estimation techniques can produce estimates of "patient load" that may be useful for many, if not all, purposes.

There are a variety of techniques available for making such estimates.[21] Synthetic estimation, a technique developed at NCHS,[22] may be useful for making estimates of the number of couples with impaired fecundity for States and local areas.[23] The limitations of

the technique include the following: First, although it has been validated for some kinds of estimates,[24,25] it has not been validated for reproductive impairments because comparable estimates at the local level do not exist. Secondly, the estimates are subject to sampling error; and thirdly, they are subject to bias under certain conditions.

In short, "the advantages of the synthetic-estimation approach to local estimation are its intuitive appeal, its simplicity, and its low cost relative to a direct survey of the local population. A major disadvantage is its lack of sensitivity to certain local characteristics."[22]

The data required for a synthetic estimate of fecundity impairments in a local area include a census count or estimate of the married female population 15–44 years of age in the area, in 5-year or 10-year age groups; the data from the NSFG on fecundity status by age (table 1); and the percents of couples wanting children or additional children (tables 13 and 14).

Perhaps the most critical assumption of the technique is that the percents of women with impaired fecundity and the percents of those with impaired fecundity who want more children are the same within age groups in the local area as they are in the national population. This will normally be a reasonable assumption, but if the population of currently married women 15–44 in the local area is predominantly black or has other characteristics closely associated with fecundity status, it may be worthwhile to adjust the estimates for that fact.

It is beyond the scope of this report to discuss specific examples of the application of synthetic estimation or any other estimation technique, but an example of the application of synthetic estimation to fecundity impairments is available.[23] Methodological evaluations and improvements of synthetic estimation techniques are also continuing.[25,26,27]

Trends in infertility[a]

The 1965 National Fertility Study, or NFS, was a predecessor of the National Survey of Family Growth (NSFG) and was generally similar in design and coverage. A nationally representative sample of 4,810 currently married women 15–44 years of age were interviewed for the NFS, including 969 black wives. Further details on the NFS may be found in appendix I of this report and in the monograph on the NFS.[28]

Fecundity status (the classification scheme used in tables 1–14 of this report) makes full use of the data in the NSFG interview and provides a comprehensive definition of reproductive impairments, which include difficulty in conceiving, high risk of miscarriage, and

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[a]Because of space limitations in this report, this discussion of trends is relatively brief. For a more detailed analysis of trends, see reference 2.

danger to the life or health of the mother. However, because of differences in the NFS and NSFG questions on reproductive impairments, it is not possible to use the fecundity status classification to measure trends from 1965 through 1976. Both surveys, however, asked each respondent for a marital history, a pregnancy history, and a contraceptive history for the 3 years before the interview. This information makes it possible to calculate the percent of couples who were "infertile"—who were not surgically sterile and who for a year or more immediately before the date of interview had been continuously married, had not used any contraception, and had not had a pregnancy.[29,30,31]

Infertility is a narrower definition of reproductive impairments than the "impaired fecundity" category of fecundity status (tables 1–14) because infertility only includes difficulty in conceiving. The percent classified as fecund in 1976 (62 percent) using infertility status is therefore somewhat higher than when using fecundity status (56 percent). But using the "infertility status" classification does permit an unbiased measurement of trends.

Tables 15 and 16 and figure 6 show currently married women 15–44 years of age by infertility status and selected characteristics in 1965 and 1976. Infertility status consists of three principal categories: surgically sterile, infertile, and fecund. "Surgically sterile" includes both contraceptive and noncontraceptive operations. "Infertile" consists of couples who were not surgically sterile and were continuously married, did not use contraception, and did not have a pregnancy for at least 12 months before the date of interview. "Fecund," in tables 15 and 16, includes couples who were neither surgically sterile nor infertile.

There was a sharp increase in the percent surgically sterile between 1965 and 1976 (table 15). The increase among white couples was from 16 to 29 percent; among black couples the increase was smaller, from 14 to 22 percent.

About 1 in 10 couples were classified as "infertile" at the date of interview in both 1965 and 1976. However, this overall stability was the result of increases among younger wives and decreases among older wives. There was a statistically significant increase between 1965 and 1976 in the percent infertile among women 15–29 years of age and a significant decrease among women 30–44 years of age (figure 7 and table 16). Among black wives 20–24 years of age, the proportion infertile increased substantially, from 3 to 15 percent (table 15). The data suggest that the percent infertile decreased among black wives 40–44 years of age, from 39 to 29 percent.

The percent classified as fecund in table 15 decreased between 1965 and 1976 in every age group for wives 25 years of age and older. This was true for white women and black women separately, although three. of the changes among black wives were not
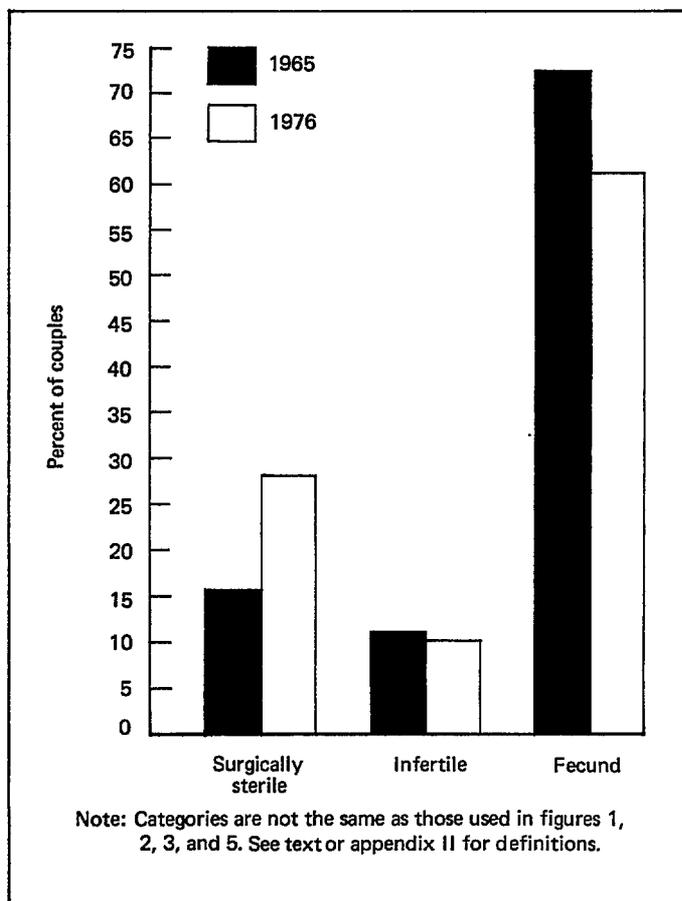
Figure 6. Percent distribution of all currently married couples with wife 15–44 years of age by infertility status: United States, 1965 and 1976

statistically significant. Most of these decreases in the percent fecund were due to increases in the proportion surgically sterile.

Table 16 shows that the increases in the percent surgically sterile occurred among wives with two or more children; none of the changes in the percent surgically sterile at parity zero or one was statistically significant. About 51 percent of white wives with three or more births were surgically sterile in 1976, compared with only 22 percent in 1965. These increases suggest (and other data corroborate) that couples who had reached or surpassed their intended family size turned to sterilization to ensure that unintended pregnancies did not occur thereafter.

The proportion infertile (table 16) increased from 6 to 9 percent between 1965 and 1976 among women 15–29 years of age with no or one birth. This increase was especially marked among black wives 15–29 years of age with no or one child: 14 percent were classified as infertile in 1976 compared with 6 percent in 1965. The data also suggest an increase among younger black wives with three or more children, from 3 to 11 percent.

It is beyond the scope of this report to inquire into the causes and consequences of these changes in
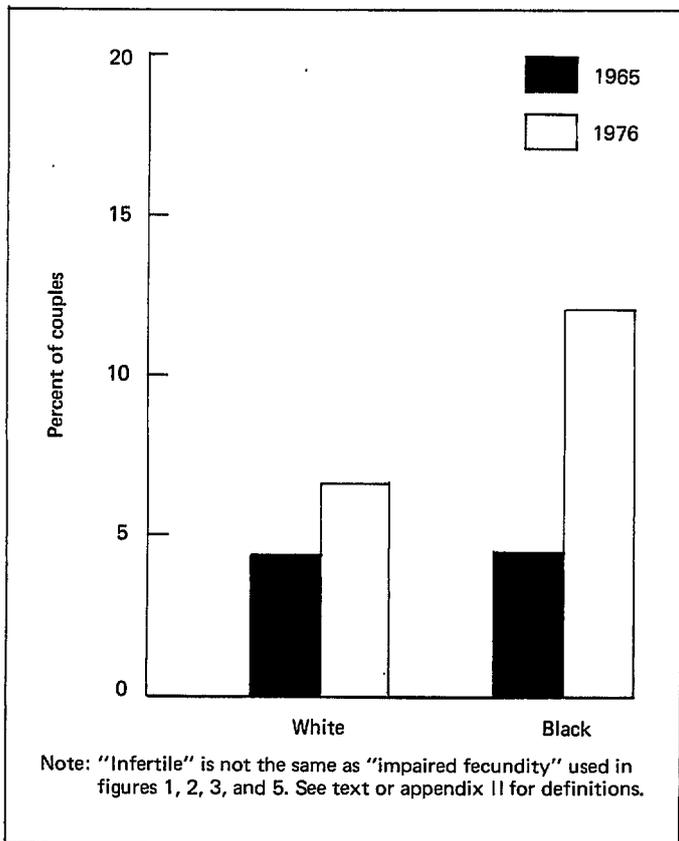
Figure 7. Percent of couples with wife 15–29 years of age classified as infertile, by race: United States, 1965 and 1976

Note: "Infertile" is not the same as "impaired fecundity" used in figures 1, 2, 3, and 5. See text or appendix II for definitions.

infertility status, but it may be useful to point out some of the possibilities that have been suggested. One researcher who reviewed these data suggested that the increases in the percent infertile among wives 15–29 may be related to the tripling in the number of reported cases of gonorrhea between 1965 and 1975.[32] Reported gonorrhea case rates are highest among women 20–24 years of age,[33] and infertility is sometimes a consequence of gonorrhea. Intrauterine devices (IUD's) were used by less than 1 percent of married women in 1965, but in 1976 the proportion had increased to about 6 percent.[34] Because women who use IUD's have a higher risk of pelvic inflammatory disease than women who do not,[35] and because pelvic inflammatory disease is a risk factor in infertility, this association may also merit further investigation. Whatever its causes, the apparent increase in the percent infertile among younger women at parity zero or one may have significant demographic and health consequences if it persisted after 1976.

In almost every age, race, and parity group, the percent fecund decreased between 1965 and 1976, although the decreases in some subgroups were not statistically significant. These reductions, primarily reflecting an increase in surgical sterilizations, were larger at the later ages and higher parities. The demographic impact of the smaller percent fecund is difficult to predict. To the extent that couples switched to sterilization from other effective methods of contraception, the impact on birth rates probably will be small. To the extent that couples switched from less effective nonsurgical methods of contraception, however, the impact could be to reduce unwanted births at the later ages and perhaps to make birth rates lower in future years than many observers expect.

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List of detailed tables

Table 1. Number of currently married women 15–44 years of age and percent distribution by fecundity status, according to selected characteristics: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

Characteristic	Number of women in thousands	Total	Surgically sterile		Impaired fecundity				Fecund
			Contraceptive	Non-contraceptive	All impaired	Non-surgically sterile	Sub-fecund	Long interval	
					Percent distribution				
All women[1]	27,488	100.0	18.5	9.6	15.7	1.3	10.4	3.9	56.1
Age									
15–24 years	6,020	100.0	3.5	*0.4	10.8	*0.2	9.8	*0.8	85.3
15–19 years	1,043	100.0	*0.8	*0.2	*8.9	–	*8.8	*0.1	90.1
20–24 years	4,977	100.0	4.0	*0.5	11.2	*0.3	10.0	*1.0	84.3
25–34 years	12,179	100.0	19.1	6.8	15.5	1.3	11.5	2.6	58.7
25–29 years	6,443	100.0	12.5	4.0	14.7	*1.3	11.1	2.3	68.7
30–34 years	5,736	100.0	26.4	9.8	16.2	*1.3	12.0	2.9	47.5
35–44 years	9,288	100.0	27.6	19.4	19.1	2.1	9.3	7.7	33.9
35–39 years	4,814	100.0	28.8	16.4	18.4	2.3	9.9	6.2	36.3
40–44 years	4,474	100.0	26.4	22.6	19.8	*1.8	8.7	9.3	31.2
Parity									
0	5,235	100.0	*1.5	4.1	21.4	3.7	12.7	5.0	73.0
1	5,571	100.0	3.8	5.0	20.3	*0.9	15.3	4.1	70.9
2	7,638	100.0	23.3	8.9	12.6	*0.7	9.2	2.6	55.1
3 or more	9,045	100.0	33.5	16.3	12.1	*0.7	7.0	4.3	38.1
Years since wife's first marriage									
Less than 5 years	7,039	100.0	1.8	*1.3	10.4	*0.7	9.0	*0.8	86.5
5–9 years	6,389	100.0	13.7	3.2	16.3	*0.7	13.6	2.1	66.7
10–14 years	4,972	100.0	28.2	10.9	17.6	2.4	10.4	4.8	43.3
15 years or more	8,750	100.0	30.2	20.1	17.9	1.7	9.0	7.2	31.8
Hispanic origin									
Hispanic	1,699	100.0	10.7	8.0	17.8	*0.7	13.0	*4.1	63.5
Other	25,741	100.0	19.1	9.8	15.5	1.4	10.2	3.9	55.7

[1] Includes women for whom years since wife's first marriage and origin are unknown.

Table 2. Number of currently married women 15–44 years of age and percent distribution by fecundity status, according to parity and age: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

Parity and age	Number of women in thousands	Total	Surgically sterile		Impaired fecundity	Fecund
			Contraceptive	Non-contraceptive		
			Percent distribution			
All women	27,488	100.0	18.5	9.6	15.7	56.1
Parity 0						
15–44 years	5,235	100.0	*1.5	4.1	21.4	73.0
15–24 years	2,738	100.0	*0.2	–	10.6	89.3
25–34 years	1,931	100.0	*1.8	*4.5	27.3	66.4
35–44 years	565	100.0	*6.5	22.3	53.9	17.2
Parity 1						
15–44 years	5,571	100.0	3.8	5.0	20.3	70.9
15–24 years	2,130	100.0	*0.3	*0.7	11.2	87.8
25–34 years	2,562	100.0	4.5	*4.0	21.7	69.8
35–44 years	879	100.0	*10.3	18.2	37.9	33.5
Parity 2						
15–44 years	7,638	100.0	23.3	8.9	12.6	55.1
15–24 years	907	100.0	14.4	*0.9	7.8	77.0
25–34 years	4,391	100.0	25.4	6.1	11.1	57.4
35–44 years	2,340	100.0	23.0	17.3	17.2	42.5
Parity 3 or more						
15–44 years	9,045	100.0	33.5	16.3	12.1	38.1
15–24 years	245	100.0	*26.9	*1.2	*21.6	50.2
25–34 years	3,295	100.0	32.1	11.0	9.4	47.5
35–44 years	5,504	100.0	34.6	20.2	13.3	31.9

Table 3. Number of currently married white women 15–44 years of age and percent distribution by fecundity status, according to age, parity, and years since wife's first marriage: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

Age, parity, and years since wife's first marriage	Number of women in thousands	Total	Surgically sterile		Impaired fecundity				Fecund
			Contraceptive	Non-contraceptive	All impaired	Non-surgically sterile	Sub-fecund	Long interval	
					Percent distribution				
All women[1]	24,795	100.0	19.3	9.7	14.9	1.3	10.1	3.5	56.1
Age									
15–24 years..............................	5,412	100.0	3.5	*0.4	9.7	*0.2	8.9	*0.6	86.5
15–19 years	918	100.0	*0.8	–	8.5	–	*8.4	*0.1	90.7
20–24 years	4,493	100.0	4.0	*0.4	9.9	*0.3	9.0	*0.7	85.6
25–34 years.............................	10,993	100.0	20.1	6.8	15.0	1.3	11.4	2.3	58.1
25–29 years	5,806	100.0	13.1	3.9	14.7	*1.3	11.3	2.0	68.3
30–34 years	5,187	100.0	27.8	10.0	15.4	*1.3	11.4	2.6	46.8
35–44 years.............................	8,390	100.0	28.5	19.5	18.2	2.0	9.2	7.0	33.8
35–39 years	4,339	100.0	29.9	16.0	17.9	*2.2	10.0	5.7	36.2
40–44 years	4,051	100.0	26.9	23.3	18.5	*1.7	8.3	8.5	31.3
Parity									
0	4,874	100.0	*1.5	4.1	20.5	3.6	12.0	4.9	73.9
1	4,923	100.0	4.2	4.9	19.4	*0.9	15.0	3.5	71.5
2	6,939	100.0	24.9	8.7	11.8	*0.8	8.9	2.1	54.6
3 or more.................................	8,059	100.0	34.4	16.9	11.6	*0.6	7.0	3.9	37.2
Years since wife's first marriage									
Less than 5 years..................	6,253	100.0	1.8	*1.3	9.7	*0.7	8.4	*0.7	87.2
5–9 years.................................	5,740	100.0	14.6	2.8	15.3	*0.6	13.1	*1.5	67.4
10–14 years.............................	4,512	100.0	29.4	10.8	17.1	2.5	10.2	4.4	42.7
15 years or more....................	8,048	100.0	30.7	20.4	17.2	1.6	9.0	6.5	31.7

[1] Includes women for whom years since wife's first marriage are unknown.

Table 4. Number of currently married black women 15–44 years of age and percent distribution by fecundity status, according to age, parity, and years since wife's first marriage: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

Age, parity, and years since wife's first marriage	Number of women in thousands	Total	Surgically sterile		Impaired fecundity				Fecund
			Contraceptive	Non-contraceptive	All impaired	Non-surgically sterile	Sub-fecund	Long interval	
					Percent distribution				
All women[1]	2,169	100.0	12.6	9.0	22.5	2.1	12.2	8.2	55.9
Age									
15–24 years	509	100.0	*4.0	*1.1	20.1	*0.4	15.7	*4.0 ·	74.8
15–19 years	99	100.0	*1.2	*2.3	*13.9	–	*13.9	–	82.6
20–24 years	410	100.0	*4.7	*0.8	21.6	*0.5	16.2	*5.0	72.9
25–34 years	912	100.0	9.6	6.9	18.5	*1.6	11.4	5.6	64.9
25–29 years	484	100.0	*6.8	*6.7	13.7	*1.8	*7.8	*4.2	72.8
30–34 years	428	100.0	12.8	*7.2	24.0	*1.5	15.4	*7.1	56.0
35–44 years	749	100.0	22.2	16.8	28.9	*3.9	10.8	14.2	32.1
35–39 years	368	100.0	22.0	15.7	25.5	*4.1	*9.7	11.8	36.7
40–44 years	381	100.0	22.4	17.9	32.1	*3.6	12.0	16.5	27.6
Parity									
0	242	100.0	*0.8	*6.7	35.0	*8.1	17.2	*9.7	57.4
1	526	100.0	*0.7	*6.2	27.1	*1.2	17.4	8.5	66.0
2	565	100.0	9.1	9.3	18.3	*0.8	11.2	*6.4	63.3
3 or more	837	100.0	26.0	11.1	18.8	*1.9	8.2	8.7	44.1
Years since wife's first marriage									
Less than 5 years	585	100.0	*2.6	*1.5	14.4	*1.0	11.3	*2.1	81.6
5–9 years	504	100.0	*7.0	*5.9	24.6	*0.9	15.8	*7.9	62.5
10–14 years	368	100.0	15.4	14.7	21.4	*2.4	14.1	*4.9	48.5
15 years or more	627	100.0	25.1	14.5	27.9	*3.0	9.5	15.4	32.5

[1] Includes women for whom years since wife's first marriage are unknown.

Table 5. Number of currently married women 15–44 years of age and percent distribution by fecundity status, according to selected characteristics: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample, design, sampling variability, and definitions of terms]

Characteristic	Number of women in thousands	Total	Surgically sterile		Impaired fecundity	Fecund
			Contraceptive	Non-contraceptive		
			Percent distribution			
All women[1]	27,488	100.0	18.5	9.6	15.7	56.1
Education						
Less than high school	6,272	100.0	21.7	12.6	18.9	46.8
High school	12,970	100.0	19.0	10.0	14.9	56.2
More than high school	8,198	100.0	15.4	6.8	14.5	63.2
Poverty level income						
Below poverty level income	1,418	100.0	17.5	*6.9	14.5	61.1
100–149 percent of poverty level income	2,030	100.0	20.1	8.0	14.1	57.8
150–199 percent of poverty level income	3,098	100.0	18.7	7.4	13.8	60.1
200–299 percent of poverty level income	6,162	100.0	21.1	10.1	12.8	56.0
300 percent or more of poverty level income	11,797	100.0	17.9	10.0	17.4	54.7
Religion						
Protestant	17,354	100.0	21.7	10.8	14.7	52.7
Catholic	7,792	100.0	13.1	8.6	17.6	60.7
No religion	1,153	100.0	14.8	*2.6	13.0	69.6
Geographic region						
Northeast	5,561	100.0	13.0	6.6	19.9	60.5
North Central	7,893	100.0	19.8	10.7	13.7	55.9
South	9,213	100.0	18.5	10.9	15.5	55.0
West	4,821	100.0	23.0	9.1	14.2	53.7
Labor force status						
In labor force	13,488	100.0	18.7	10.0	15.1	56.1
Not in labor force	13,957	100.0	18.4	9.3	16.3	56.1

[1] Includes women with unknown education, poverty level income, religion, or labor force status, and women with religious preferences other than Protestant, Catholic, or no religion.

Table 6. Number of currently married white women 15–44 years of age and percent distribution by fecundity status, according to selected characteristics: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

| Characteristic | Number of women in thousands | Total | Surgically sterile | | Impaired fecundity | Fecund |
			Contraceptive	Non-contraceptive		
			Percent distribution			
All women[1]	24,795	100.0	19.3	9.7	14.9	56.1
Education						
Less than high school	5,442	100.0	22.4	13.0	17.0	47.5
High school	11,941	100.0	19.7	10.1	14.5	55.7
More than high school	7,364	100.0	16.2	6.7	14.2	62.9
Poverty level income						
Below poverty level income	1,117	100.0	17.2	*6.3	12.8	63.7
100–149 percent of poverty level income	1,748	100.0	21.5	8.4	13.9	56.1
150–199 percent of poverty level income	2,790	100.0	18.9	7.1	13.2	60.8
200–299 percent of poverty level income	5,689	100.0	21.8	10.3	12.5	55.5
300 percent or more of poverty level income	11,034	100.0	18.6	9.8	16.8	54.7
Religion						
Protestant	15,368	100.0	22.8	11.0	13.8	52.3
Catholic	7,336	100.0	13.6	8.5	16.8	61.1
No religion	1,053	100.0	14.1	*2.4	13.5	70.1
Geographic region						
Northeast	5,100	100.0	13.3	6.8	19.4	60.5
North Central	7,479	100.0	20.2	11.0	13.1	55.7
South	7,838	100.0	19.6	11.0	14.5	54.9
West	4,378	100.0	24.1	8.5	13.7	53.7
Labor force status						
In labor force	11,914	100.0	19.5	10.0	14.1	56.4
Not in labor force	12,839	100.0	19.1	9.4	15.7	55.7

[1] Includes women with unknown education, poverty level income, religion, or labor force status, and women with religious preferences other than Protestant, Catholic, or no religion.

Table 7. Number of currently married black women 15–44 years of age and percent distribution by fecundity status, according to selected characteristics: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

| Characteristic | Number of women in thousands | Total | Surgically sterile | | Impaired fecundity | Fecund |
			Contraceptive	Non-contraceptive		
		Percent distribution				
All women[1]	2,169	100.0	12.6	9.0	22.5	55.9
Education						
Less than high school	691	100.0	17.9	9.3	31.5	41.3
High school	889	100.0	11.0	10.4	18.9	59.8
More than high school	588	100.0	9.0	*6.5	17.2	67.3
Poverty level income						
Below poverty level income	252	100.0	17.1	*10.9	19.9	52.1
100–149 percent of poverty level income	226	100.0	*14.5	*5.8	*12.8	66.9
150–199 percent of poverty level income	274	100.0	18.9	*11.2	19.0	50.9
200–299 percent of poverty level income	367	100.0	12.0	*9.3	12.8	65.9
300 percent or more of poverty level income	578	100.0	9.6	8.6	28.5	53.3
Religion						
Protestant	1,908	100.0	13.6	9.1	22.0	55.2
Catholic	165	100.0	*4.4	*9.6	31.2	54.8
No religion	68	100.0	*7.0	*6.9	*12.1	74.0
Geographic region						
Northeast	342	100.0	12.2	*5.8	25.8	56.1
North Central	304	100.0	13.2	*6.4	21.0	59.4
South	1,281	100.0	13.0	10.5	22.3	54.2
West	242	100.0	*10.8	*8.6	20.5	60.0
Labor force status						
In labor force	1,349	100.0	13.2	9.3	23.3	54.2
Not in labor force	819	100.0	11.7	8.5	21.0	58.8

[1] Includes women with unknown education, poverty level income, religion, or labor force status, and women with religious preferences other than Protestant, Catholic, or no religion.

Table 8. Number of currently married women 15–44 years of age and percent distribution by fecundity status, according to occupation of wife and occupation of husband: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

| Occupation of wife and occupation of husband | Number of women in thousands | Total | Surgically sterile | | Impaired fecundity | Fecund |
			Contraceptive	Non-contraceptive		
			Percent distribution			
All women[1]	27,488	100.0	18.5	9.6	15.7	56.1
Occupation of wife						
Never worked	1,682	100.0	17.0	7.0	14.8	61.3
Professional worker	4,507	100.0	15.0	7.1	16.3	61.6
Manager	1,176	100.0	16.3	18.3	19.1	46.2
Sales worker	1,423	100.0	16.8	11.3	11.4	60.5
Clerical worker	9,419	100.0	20.2	8.2	14.8	56.8
Crafts worker	384	100.0	*16.9	*10.9	*10.1	62.1
Operative	3,285	100.0	20.8	13.7	15.3	50.1
Transport equipment operator	172	100.0	*22.5	*15.0	*21.9	40.6
Laborer, except farm	236	100.0	*17.1	*9.4	*28.6	44.9
Farm laborer	144	100.0	*11.8	*2.9	*18.5	66.8
Service worker	4,170	100.0	20.4	10.7	15.6	53.3
Private household worker	376	100.0	*7.4	*6.3	36.8	49.6
Occupation of husband						
Professional worker	5,029	100.0	15.7	7.2	14.9	62.2
Manager	4,355	100.0	23.4	13.0	14.7	48.8
Sales worker	1,386	100.0	16.9	8.1	13.2	61.8
Clerical worker	1,293	100.0	15.0	10.9	15.4	58.6
Crafts worker	6,461	100.0	19.1	9.4	15.1	56.4
Operative	3,272	100.0	19.3	9.3	17.4	54.0
Transport equipment operator	1,660	100.0	21.9	12.8	16.7	48.6
Laborer, except farm	1,390	100.0	14.3	7.4	19.6	58.7
Farmer	335	100.0	*18.6	*11.8	*22.2	47.4
Farm laborer	161	100.0	*12.2	*10.4	*21.2	56.2
Service worker	1,866	100.0	16.7	9.5	15.4	58.3

[1] Includes unknown occupations and other occupations not classified separately.

Table 9. Number of currently married women 15–44 years of age and percent distribution by number of reported spontaneous pregnancy losses, according to selected characteristics: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

Characteristic	Number of women in thousands	Total	No reported spontaneous pregnancy loss	1 or more reported spontaneous pregnancy losses			
				All losses	1	2	3 or more
				Percent distribution			
All women[1]	27,488	100.0	78.2	21.8	15.1	4.1	2.5
Age							
15–24 years	6,020	100.0	88.4	11.6	9.8	*1.0	*0.8
15–19 years	1,043	100.0	87.9	12.1	9.8	*0.5	*1.8
20–24 years	4,977	100.0	88.5	11.5	9.8	*1.1	*0.6
25–34 years	12,179	100.0	80.3	19.7	14.1	3.7	1.9
25–29 years	6,443	100.0	85.0	15.0	11.7	2.2	*1.0
30–34 years	5,736	100.0	75.0	25.0	16.8	5.3	2.8
35–44 years	9,288	100.0	68.9	31.1	19.9	6.6	4.6
35–39 years	4,814	100.0	70.6	29.4	20.0	5.4	4.1
40–44 years	4,474	100.0	67.0	33.0	19.9	8.0	5.1
Parity							
0	5,235	100.0	89.3	10.7	7.6	*1.9	*1.2
1	5,571	100.0	82.3	17.7	12.4	3.1	2.2
2	7,638	100.0	78.9	21.1	15.5	3.2	2.4
3 or more	9,045	100.0	68.7	31.3	20.9	6.7	3.7
Fecundity status							
Surgically sterile:							
Contraceptive	5,098	100.0	74.9	25.1	16.7	5.1	3.3
Noncontraceptive	2,652	100.0	62.0	38.0	21.6	9.8	6.5
Impaired fecundity	4,306	100.0	67.3	32.7	18.7	7.7	6.3
Fecund	15,432	100.0	85.2	14.8	12.5	1.8	*0.6
Hispanic origin							
Hispanic	1,699	100.0	82.0	18.0	13.0	*3.7	*1.2
Other	25,741	100.0	78.0	22.0	15.3	4.1	2.6

[1] Includes women for whom origin is unknown.

Table 10. Number of currently married white women 15–44 years of age and percent distribution by number of reported spontaneous pregnancy losses, according to age, parity, and fecundity status: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

Age, parity, and fecundity status	Number of women in thousands	Total	No reported spontaneous pregnancy loss	1 or more reported spontaneous pregnancy losses			
				All losses	1	2	3 or more
				Percent distribution			
All women...............................	24,795	100.0	78.4	21.6	15.0	4.1	2.5
Age							
15–24 years...............................	5,412	100.0	89.0	11.0	9.3	*0.9	*0.8
15–19 years	918	100.0	88.9	11.1	*9.0	*0.1	*1.9
20–24 years	4,493	100.0	89.0	11.0	9.4	*1.0	*0.6
25–34 years...............................	10,993	100.0	80.4	19.6	14.1	3.8	1.7
25–29 years	5,806	100.0	85.0	15.0	· 11.9	2.2	*0.9
30–34 years	5,187	100.0	75.2	24.8	16.6	5.5	2.6
35–44 years...............................	8,390	100.0	69.0	31.0	19.8	6.7	4.6
35–39 years	4,339	100.0	71.2	28.8	19.4	5.2	4.1
40–44 years	4,051	100.0	66.5	33.5	20.2	8.2	5.0
Parity							
0	4,874	100.0	89.9	10.1	7.0	*1.9	*1.2
1	4,923	100.0	82.5	17.5	12.3	3.0	*2.2
2	6,939	100.0	79.2	20.8	15.5	3.1	2.2
3 or more...............................	8,059	100.0	68.2	31.8	21.1	7.0	3.7
Fecundity status							
Surgically sterile:							
Contraceptive	4,781	100.0	75.2	24.8	16.4	5.3	3.1
Noncontraceptive......................	2,404	100.0	61.7	38.3	21.8	10.1	6.4
Impaired fecundity.......................	3,701	100.0	67.6	32.4	18.4	7.6	6.5
Fecund.......................................	13,909	100.0	85.2	14.8	12.4	1.8	*0.5

Table 11. Number of currently married black women 15–44 years of age and percent distribution by number of reported spontaneous pregnancy losses, according to age, parity, and fecundity status: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

Age, parity, and fecundity status	Number of women in thousands	Total	No reported spontaneous pregnancy loss	1 or more reported spontaneous pregnancy losses			
				All losses	1	2	3 or more
				Percent distribution			
All women..................................	2,169	100.0	75.9	24.1	16.7	3.9	3.4
Age							
15–24 years..............................	509	100.0	81.8	18.2	15.5	*2.0	*0.7
15–19 years	99	100.0	81.0	*19.0	*13.6	*4.1	*1.3
20–24 years	410	100.0	82.0	18.0	15.9	*1.5	*0.6
25–34 years..............................	912	100.0	79.0	21.0	14.1	*3.6	*3.3
25–29 years	484	100.0	85.9	14.1	10.1	*2.7	*1.3
30–34 years	428	100.0	71.1	28.9	18.6	*4.7	*5.6
35–44 years..............................	749	100.0	68.1	31.9	20.9	*5.6	*5.4
35–39 years	368	100.0	63.2	36.8	25.9	*6.4	*4.5
40–44 years	381	100.0	72.8	27.2	16.0	*4.9	*6.2
Parity							
0	242	100.0	74.8	25.2	18.9	*4.3	*2.0
1	526	100.0	80.8	19.2	12.2	*4.3	*2.8
2	565	100.0	76.7	23.3	17.6	*2.3	*3.4
3 or more	837	100.0	72.6	27.4	18.4	*4.7	*4.2
Fecundity status							
Surgically sterile:							
Contraceptive	274	100.0	70.0	30.0	19.9	*3.5	*6.6
Noncontraceptive....................	195	100.0	62.2	37.8	24.1	*4.9	*8.8
Impaired fecundity.......................	488	100.0	63.8	36.2	21.5	9.4	*5.3
Fecund..	1,213	100.0	84.3	15.7	12.9	*1.7	*1.1

Table 12. Number of currently married women 15–44 years of age and percent distribution by number of reported spontaneous pregnancy losses, according to occupation of wife and occupation of husband: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

Occupation of wife and occupation of husband	Number of women in thousands	Total	No reported spontaneous pregnancy loss	1 or more reported spontaneous pregnancy losses			
				All losses	1	2	3 or more
				Percent distribution			
All women[1]	27,488	100.0	78.2	21.8	15.1	4.1	2.5
Occupation of wife							
Never worked	1,682	100.0	80.0	20.0	14.0	*4.3	*1.8
Professional worker	4,507	100.0	80.3	19.7	12.2	5.1	*2.3
Manager	1,176	100.0	75.6	24.4	18.2	*4.4	*1.8
Sales worker	1,423	100.0	79.3	20.7	15.0	*4.0	*1.6
Clerical worker	9,419	100.0	79.2	20.8	14.6	3.7	2.5
Crafts worker	384	100.0	78.8	*21.2	*11.4	*4.7	*5.0
Operative	3,285	100.0	78.1	21.9	15.7	4.4	*1.7
Transport equipment operator	172	100.0	68.7	*31.3	*24.8	*1.7	*4.8
Laborer, except farm	236	100.0	80.0	*20.0	*11.4	–	*8.5
Farm laborer	144	100.0	77.1	*22.9	*14.8	*3.2	*4.9
Service worker	4,170	100.0	73.2	26.8	19.3	4.1	3.4
Private household worker	376	100.0	72.6	27.4	*19.2	*2.1	*6.1
Occupation of husband							
Professional worker	5,029	100.0	81.1	18.9	12.0	4.2	2.7
Manager	4,355	100.0	76.4	23.6	16.6	4.9	*2.2
Sales worker	1,386	100.0	76.2	23.8	18.8	*1.8	*3.2
Clerical worker	1,293	100.0	81.6	18.4	13.1	*2.6	*2.7
Crafts worker	6,461	100.0	78.0	22.0	15.3	4.0	2.7
Operative	3,272	100.0	77.6	22.4	15.4	4.2	*2.8
Transport equipment operator	1,660	100.0	73.5	26.5	17.5	*5.6	*3.4
Laborer, except farm	1,390	100.0	78.5	21.5	16.1	*3.7	*1.7
Farmer	335	100.0	75.0	25.0	*20.2	*0.6	*4.2
Farm laborer	161	100.0	80.5	*19.5	*12.1	*6.2	*1.2
Service worker	1,866	100.0	78.9	21.1	16.2	*3.9	*1.0

[1] Includes unknown occupations and other occupations not classified separately.

Table 13. Number of currently married women 15–44 years of age who had impaired fecundity or were surgically sterile for noncontraceptive reasons, and percent who wanted a baby or another baby, by selected characteristics: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

Characteristic	Impaired fecundity				Surgically sterile, non-contraceptive	Women who want a baby or another baby				
	All impaired	Non-surgically sterile	Sub-fecund	Long interval		Impaired fecundity				Surgically sterile, non-contraceptive
						All impaired	Non-surgically sterile	Sub-fecund	Long interval	
	Number of women in thousands					Percent				
All women[1]	4,306	368	2,856	1,082	2,652	47.3	50.8	50.7	37.2	41.4
Parity										
0	1,121	195	665	261	214	74.9	72.2	80.8	61.9	48.3
1	1,129	*49	851	228	278	56.8	*54.8	62.1	37.7	53.5
2	962	*56	705	200	683	33.6	*26.5	32.9	38.2	46.1
3 or more	1,095	*67	635	393	1,478	21.3	*6.2	23.8	*19.9	36.0
Age										
15–24 years	652	*13	588	*51	*25	81.2	99.9	82.0	*67.8	86.0
25–34 years	1,882	161	1,405	317	823	60.4	75.2	59.0	58.9	55.0
35–44 years	1,772	194	864	714	1,804	21.0	*27.2	16.0	25.4	34.6
Race										
White	3,701	322	2,505	874	2,404	46.9	50.5	50.0	36.7	39.9
Black	488	45	265	177	195	49.2	52.8	53.0	42.6	52.1
Hispanic origin[2]										
Hispanic	302	*13	220	*69	136	60.5	*46.9	62.5	*56.7	54.6
Other	4,001	354	2,636	1,011	2,515	46.3	51.0	49.7	35.7	40.7

[1] Includes white, black, and other races; also includes women for whom origin is unknown.
[2] Women of Hispanic origin are also included in the figures for white and black women if they were identified as white or black by the interviewer.

Table 14. Number of currently married women 15–44 years of age who had impaired fecundity or were surgically sterile for noncontraceptive reasons, and percent who wanted a baby or another baby, by race, age, and parity: United States, 1976

[Statistics are based on a sample of the household population of the conterminous United States. See appendixes I and II for discussion of the sample design, sampling variability, and definitions of terms]

Race, age, and parity	Impaired fecundity		Surgically sterile, noncontraceptive	
	Number of women in thousands	Percent who want a baby or another baby	Number of women in thousands	Percent who want a baby or another baby
All races[1]				
Total	4,306	47.3	2,652	41.4
Age				
15–29 years	1,602	73.3	286	60.3
30–44 years	2,704	31.9	2,366	39.2
Parity				
0	1,121	74.9	214	48.3
1	1,129	56.8	278	53.5
2	962	33.6	683	46.1
3 or more	1,095	21.3	1,478	36.0
White				
Total	3,701	46.9	2,404	39.9
Age				
15–29 years	1,376	73.9	248	60.7
30–44 years	2,325	30.9	2,156	37.5
Parity				
0	999	73.0	198	45.9
1	954	55.7	240	50.4
2	816	32.7	607	45.2
3 or more	931	22.1	1,360	34.7
Black				
Total	488	49.2	195	52.1
Age				
15–29 years	169	72.6	*38	57.5
30–44 years	319	36.8	157	50.8
Parity				
0	85	86.2	*16	77.2
1	142	65.8	*32	68.3
2	103	48.5	52	59.3
3 or more	157	*14.5	93	38.0

[1] Includes white, black, and other races.

Table 15. Percent distribution[1] of currently married women 15–44 years of age by infertility status, according to race and age: United States, 1965 and 1976

[Statistics are based on samples of the household population of the conterminous United States. See appendixes I and II for discussion of the sample designs, sampling variability, and definitions of terms]

Race and age	Infertility status					
	Surgically sterile[2]		Infertile[3]		Fecund[4]	
	1976	1965	1976	1965	1976	1965
All races[5]	Percent distribution					
15–44 years	28.2	15.8	10.3	11.2	61.6	73.0
15–19 years	*1.0	*0.6	*2.1	*0.6	96.9	98.9
20–24 years	4.5	3.1	6.4	*3.5	89.2	93.4
25–29 years	16.6	9.5	9.0	6.5	74.4	84.0
30–34 years	36.2	17.0	10.3	11.6	53.5	71.3
35–39 years	45.3	22.8	12.5	14.2	42.2	63.0
40–44 years	49.0	26.8	15.9	20.2	35.2	52.9
White						
15–44 years	29.0	15.9	9.4	10.5	61.6	73.6
15–19 years	*0.8	*0.6	*2.0	*0.6	97.3	98.7
20–24 years	4.5	3.1	5.6	3.4	89.9	93.4
25–29 years	17.1	9.1	8.4	6.1	74.5	84.8
30–34 years	37.8	17.2	9.5	10.8	52.7	72.0
35–39 years	45.9	22.8	11.4	13.4	42.7	63.8
40–44 years	50.2	26.7	14.6	18.5	35.2	54.8
Black						
15–44 years	21.6	14.2	18.1	16.3	60.3	69.5
15–19 years	*3.5	–	*3.7	–	92.8	100.0
20–24 years	*5.5	3.4	15.4	3.4	79.1	93.1
25–29 years	13.5	12.0	11.2	7.1	75.4	80.9
30–34 years	20.0	13.5	18.1	15.7	62.0	70.8
35–39 years	37.8	21.5	23.3	24.4	38.9	54.1
40–44 years	40.3	27.3	28.8	39.0	30.9	33.7

[1] See appendix tables VI and VII for base numbers.
[2] Includes both contraceptive and noncontraceptive operations.
[3] See text or appendix II for definition; "infertile" is not the same as "impaired fecundity," used in tables 1–14.
[4] "Fecund" is used in a different way in this table than in tables 1–14. See text or appendix II for definitions.
[5] Includes white, black, and other races.

Table 16. Percent distribution[1] of currently married women 15–44 years of age by infertility status, according to race, parity, and age: United States, 1965 and 1976

[Statistics are based on samples of the household population of the conterminous United States. See appendixes I and II for discussion of the sample designs, sampling variability, and definitions of terms]

Race, parity, and age	Infertility status					
	Surgically sterile[2]		Infertile[3]		Fecund[4]	
	1976	1965	1976	1965	1976	1965
All races[5] **All parities**	Percent distribution					
15–44 years	28.2	15.8	10.3	11.2	61.6	73.0
15–29 years	10.4	5.7	7.4	4.5	82.2	89.8
30–44 years	42.9	22.3	12.6	15.5	44.4	62.2
Parity 0–1						
15–44 years	7.2	7.4	15.2	16.0	77.6	76.5
15–29 years	2.3	0.5	9.1	6.3	88.6	93.2
30–44 years	21.5	18.1	32.9	31.1	45.6	50.8
Parity 2						
15–44 years	32.3	14.2	6.0	9.3	61.7	76.6
15–29 years	22.4	5.5	4.1	3.9	73.5	90.6
30–44 years	39.3	20.1	7.4	13.0	53.3	67.0
Parity 3 or more						
15–44 years	49.8	21.5	7.9	9.4	42.3	69.0
15–29 years	32.3	13.0	*4.7	2.7	63.0	84.4
30–44 years	52.6	24.5	8.4	11.8	39.0	63.7
White **All parities**						
15–44 years	29.0	15.9	9.4	10.5	61.6	73.6
15–29 years	10.7	5.5	6.7	4.4	82.6	90.1
30–44 years	44.1	22.3	11.6	14.3	44.3	63.3
Parity 0–1						
15–44 years	7.4	7.1	14.3	15.2	78.4	77.7
15–29 years	2.5	*0.5	8.5	6.3	89.0	93.2
30–44 years	21.9	17.7	31.4	29.5	46.7	52.8
Parity 2						
15–44 years	33.6	14.4	5.4	8.5	60.9	77.1
15–29 years	23.8	5.6	3.3	*3.6	72.9	90.8
30–44 years	40.4	20.2	7.0	11.8	52.6	68.1
Parity 3 or more						
15–44 years	51.3	21.9	6.9	8.8	41.8	69.3
15–29 years	32.8	13.1	*3.5	2.1	63.6	84.8
30–44 years	54.0	24.7	7.4	11.0	38.6	64.4
Black **All parities**						
15–44 years	21.6	14.2	18.1	16.3	60.3	69.5
15–29 years	9.2	6.6	12.1	4.5	78.7	88.9
30–44 years	32.1	20.6	23.2	26.1	44.7	53.3
Parity 0–1						
15–44 years	7.1	10.3	24.6	25.0	68.2	64.7
15–29 years	*0.8	*1.5	13.7	*5.9	85.5	92.6
30–44 years	20.9	19.1	48.4	44.1	30.7	36.8
Parity 2						
15–44 years	18.4	6.4	10.9	17.3	70.7	76.3
15–29 years	*11.7	*2.1	*9.7	5.3	78.6	92.6
30–44 years	24.9	*11.4	*12.1	31.6	63.0	57.0
Parity 3 or more						
15–44 years	37.1	18.9	17.0	11.5	45.8	69.7
15–29 years	29.0	11.9	*11.4	*3.3	59.6	84.8
30–44 years	39.5	23.6	18.7	16.9	41.9	59.6

[1] See appendix tables VI and VII for base numbers.
[2] Includes both contraceptive and noncontraceptive operations.
[3] See text or appendix II for definition; "infertile" is not the same as "impaired fecundity," used in tables 1–14.
[4] "Fecund" is used in a different way in this table than in tables 1–14. See text or appendix II for definitions.
[5] Includes white, black, and other races.

Appendixes

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Appendix I. Technical notes

Background

This report is one of a series based on the National Survey of Family Growth (NSFG) conducted by the National Center for Health Statistics (NCHS). The NSFG was designed to provide data on fertility, family planning, and aspects of maternal and child health that are closely related to childbearing.

The NSFG is a periodic survey based on personal interviews with a nationwide sample of women. A detailed description of the methods and procedures used in Cycle I of the NSFG can be found in "National Survey of Family Growth, Cycle I: Sample Design, Estimation Procedures, and Variance Estimation," Series 2, No. 76, of *Vital and Health Statistics.*[36] The present report is based on Cycle II of the NSFG. A detailed description of the methods and procedures of Cycle II can be found in "National Survey of Family Growth, Cycle II: Sample Design, Estimation Procedures, and Variance Estimation," Series 2, No. 87 of *Vital and Health Statistics.*[5] This appendix presents a summary discussion of the more important technical aspects of Cycle II.

Fieldwork for Cycle II was carried out under a contract with NCHS by Westat, Inc., between January and September of 1976. The sample is representative of women 15–44 years of age in the household population of the conterminous United States who were ever married or had coresident offspring. Interviews were completed with 8,611 women; 3,009 respondents were black women, and the other 5,602 respondents were of races other than black.

The interview focused on the respondents' marital and pregnancy histories, their use of contraception and the planning status of each pregnancy, their use of maternal care and family planning services, fecundity impairments and their expectations about future births, and a wide range of social and economic characteristics. Although the time required to com-

plete the interviews varied considerably, the average Cycle II interview lasted about 58 minutes.

Statistical design

The NSFG is based on a multistage area probability sample. Black households were sampled at higher rates than other households so that reliable estimates of statistics could be presented separately for white and black women. In addition, the sample was designed to provide tabulations for each of the four major geographic regions of the United States.

The first stage of the sample design consisted of drawing a sample of primary sampling units (PSU's). A PSU consisted of a county, a small group of contiguous counties, or standard metropolitan statistical area as defined by the U.S. Bureau of the Census in 1970. The second and third stages of sampling were used to select several segments (clusters of 15 to about 60 dwelling units) within each PSU. A systematic sample of dwelling units was then selected from each segment. Each sample dwelling unit was visited by an interviewer who listed all household members. If a woman 15–44 years of age, ever-married or never-married with offspring in household was listed as being in the household, an extended interview was conducted. If more than one woman in the household met the eligibility criteria, one of the women was randomly selected for an extended interview.

The statistics in this report are estimates for the national population and were computed by multiplying each sample case by the number of women she represented in the population. The multipliers, or final weights, ranged from 647 to 43,024 and averaged 3,822. They were derived by using three basic steps:

- *Inflation by the reciprocal of the probability of selection.*—The probability of selection is the product of the probabilities of selection of the PSU, segment, household, and sample person within the household.

- *Nonresponse adjustment.*—The weighted estimates were ratio adjusted for nonresponse by a multiplication of two factors. The first factor adjusted for nonresponse to the screener by imputing the characteristics of women in responding households to women in nonresponding households in the same PSU and stratum. The second factor adjusted for nonresponse to the interview by imputing the characteristics of responding women to nonresponding women in the same age-race category and PSU. Response to the screener was 93.8 percent; the response to the interview was 88.2 percent, yielding a combined response rate of approximately 82.7 percent.

- *Poststratification by marital status, age, and race.*— The estimates were ratio adjusted within each of the 12 age-race categories to an independent estimate of the population of ever-married women. The independent estimates were derived from the U.S. Bureau of the Census Current Population Surveys of March 1971–March 1976. The numbers of never-married women with coresident offspring were inflated by the first and second steps only.

The effect of the ratio-estimating process was to make the sample more closely representative of the population of women 15–44 years of age living in households in the conterminous United States, who were ever married or with coresident offspring. The final poststratification reduced the sample variance of the estimates for most statistics.

All figures were individually rounded; aggregate figures (numbers) were rounded to the nearest thousand. Aggregate numbers and percents may not sum to the total because of the rounding.

Measurement process

Field operations for Cycle II were carried out by Westat, Inc., under contract with NCHS; these operations included pretesting the interview schedule, selecting the sample, interviewing respondents, and performing specified quality control checks. Interviewers, all of whom were female, were trained for 1 week prior to field work. The first five interview schedules were reviewed; after a high level of quality was achieved by an interviewer, this review was reduced to a sample of questionnaires, unless an unacceptable level of accuracy was found. A 10-percent sample of respondents was recontacted by telephone to verify that the interview had taken place and that certain key items were accurately recorded.

A portion of the interivew schedule applicable to this report is reproduced in appendix III. The complete schedule for currently married women was reprinted elsewhere.[37] Two different forms of the questionnaire were used, one for interviewing currently married women and the other for interviewing widowed, divorced, separated, or never-married women with coresident offspring. The two forms differed mainly in wording when reference was made to the husband; some questions in one schedule did not appear in the other.

Data reduction

The responses of each woman to the interview questions were translated into predetermined numerical codes, and these code numbers were recorded on computer tapes. The first few questionnaires coded by each coder were checked completely; after an acceptable level of quality was reached, verification of coding was performed on a systematic sample of each coder's questionnaires. The data were edited by computer to identify inconsistencies between responses, as well as code numbers that were not allowed in the coding scheme; these errors were corrected.

Missing data on age and race were imputed because they were used in the nonresponse adjustments and for poststratification purposes. Unlike Cycle I, however, other missing data were not imputed to expedite release of the data. Therefore, percents and other statistics in Cycle II were based on cases with known data. For most variables, the level of missing data was less than 1 percent. The level of missing data is noted in the "Concepts and definitions" for each item that was missing 2 percent or more of the responses. For those few variables for which missing data may pose a problem for analysis (e.g., poverty level income), this fact is noted in the text.

Reliability of estimates

Because 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.

Sampling error is measured by a statistic called the standard error of estimate. The chances are about 68 out of 100 that an estimate from the sample will differ from a complete count by less than the standard error. The chances are about 95 out of 100 that the difference between the sample estimate and a complete count will be less than twice the standard error. The relative standard error of an estimate is obtained by dividing the standard error of the estimate by the estimate itself, and is expressed as a percent of the estimate. Numbers and percents that have a relative standard error that is more than 25 percent are considered unreliable. These figures are marked with an asterisk to caution the user, but may be combined

to make other types of comparisons of greater reliability.

Estimation of standard errors

Because of the complex multistage design of the NSFG sample, conventional formulas for calculating sampling errors are inapplicable. Standard errors were, therefore, estimated empirically by using a technique known as balanced half-sample replication. This technique produces highly reliable, unbiased estimates of sampling errors. Its application to the NSFG has been described elsewhere.[5,36]

Because it would be prohibitively expensive to estimate, and cumbersome to publish, a standard error for each percent or other statistic by this technique, standard errors were computed for selected statistics and population subgroups that were chosen to represent a wide variety of demographic characteristics and a wide variation in the size of the estimates themselves. Curves were then fitted to the relative standard error estimates (ratio of the standard error to the estimate itself) for numbers of women according to the model

$$\text{RSE}(N') = (A + B/N')^{1/2}$$

where N' is the number of women and A and B are the parameters whose estimates determine the shape of the curve. Separate curves were fitted for women of all races combined, for black women, and for women of races other than black, because different sampling rates were used for black and other women. The estimates of A and B are shown in table I.

To calculate the estimated standard error or relative standard error of an aggregate or percent, the appropriate estimates of A and B are used in the equations:

$$\text{RSE}_{N'} = (A + B/N')^{1/2}$$
$$\text{SE}_{N'} = (A + B/N')^{1/2} \times N'$$
$$\text{RSE}_{p'} = (B/P' \times (100 - P')/X')^{1/2}$$
$$\text{SE}_{p'} = (B \times P' \times (100 - P')/X')^{1/2}$$

where

N' = number of women
P' = percent

X' = number of women in the denominator of the percent
SE = standard error
RSE = relative standard error

Tables II and III show some illustrative standard errors of aggregates and percents of currently married women of all races from Cycle II of the NSFG.

Testing differences

The standard error of a difference between two comparative statistics such as the proportion surgically sterile among white couples compared with black couples, is approximately the square root of the sum of the squares of the standard errors of the statistics considered separately, or calculated by the formula, if

$$d = P'_1 - P'_2$$

then

$$\sigma_d = \sqrt{(P'_1)^2 \cdot (\text{RSE}_{p'_1})^2 + (P'_2)^2 \cdot (\text{RSE}_{p'_2})^2}$$

where P'_1 is the estimated percent for one group and P'_2 is the estimated percent for the other group, and $\text{RSE}_{p'_1}$ and $\text{RSE}_{p'_2}$ are the relative standard errors of P'_1 and P'_2, respectively. This formula will represent the actual standard error quite accurately for the difference between separate and uncorrelated characteristics although it is only a rough approximation in most other cases.

A statistically significant difference among comparable proportions or other statistics from two or more subgroups is sufficiently large when a difference of that size or larger would be expected by chance in less than 5 percent of repeated samples of the same size and type if no true difference existed in the populations sampled. Such a difference would be statistically significant at the 0.05 level. By this criterion, if the observed difference or a larger one could be expected by chance in more than 5 percent of repeated samples, then one cannot be sufficiently confident to conclude that a real difference exists between the populations. When an

Table I. Parameters used to compute estimated standard errors and relative standard errors of numbers and percents of women, by marital status and race: 1976 National Survey of Family Growth

Marital status and race	Parameter	
	A	B
Currently married		
All races	−0.0001858989	6751.0619
Black	−0.0006310400	2798.6440
White and other	−0.0002056235	7021.1665
Ever married		
All races	0.0001700390	6486.5185
Black	−0.0004520643	2848.2362
White and other	0.0000422037	7111.5185

Table II. Approximate relative standard errors and standard errors for estimated numbers of currently married women of all races combined: 1976 National Survey of Family Growth

Size of estimate	Relative standard error	Standard error
50,000	36.7	18,000
100,000	25.9	26,000
500,000	11.5	58,000
1,000,000	8.1	81,000
3,000,000	4.5	136,000
5,000,000	3.4	171,000
7,000,000	2.8	195,000
10,000,000	2.2	221,000
20,000,000	1.2	246,000

Table III. Approximate standard errors expressed in percentage points for estimated percents of currently married women of all races combined: 1976 National Survey of Family Growth

Base of percent	Estimated percent								
	2 or 98	5 or 95	7 or 93	10 or 90	15 or 85	20 or 80	30 or 70	40 or 60	50
	Standard error expressed in percentage points								
100,000..	3.6	5.7	6.6	7.8	9.3	10.4	11.9	12.7	13.0
500,000..	1.6	2.5	3.0	3.5	4.2	4.7	5.3	5.7	5.8
1,000,000	1.2	1.8	2.1	2.5	2.9	3.3	3.8	4.0	4.1
3,000,000	0.7	1.0	1.2	1.4	1.7	1.9	2.2	2.3	2.4
5,000,000	0.5	0.8	0.9	1.1	1.3	1.5	1.7	1.8	1.8
7,000,000	0.4	0.7	0.8	0.9	1.1	1.2	1.4	1.5	1.6
10,000,000	0.4	0.6	0.7	0.8	0.9	1.0	1.2	1.3	1.3
20,000,000	0.3	0.4	0.5	0.6	0.7	0.7	0.8	0.9	0.9

Example of use of table III: If 30 percent of currently married women in a specific category used the oral contraceptive pill and the base of that percent was 10,000,000, then the 30-percent column and the 10,000,000 row would indicate that 1 standard error is 1.2 percentage points and 2 standard errors are twice that, or 2.4 percentage points. Therefore, the chances are about 95 out of 100 that the true percent in the population was between 27.6 and 32.4 percent (30.0 percent ± 2.4 percent). This is called a 95-percent confidence interval. In addition, the relative standard error of that 30-percent estimate is 1.2 percent divided by 30 percent or 4.0 percent.

observed difference is large enough to be statistically significant, the true difference in the population is estimated to lie between the observed difference plus or minus 2 standard errors of that difference in 95 out of 100 samples.

Although the 5-percent criterion is conventionally applied, it is in a sense arbitrary; depending on the purpose of the particular comparison, a different level of significance may be more useful. For greater confidence one would test for significance at the 0.01 (1-percent) level, but if one can accept a 10-percent chance of concluding a difference exists when there actually is none in the population, a test of significance at the 0.10 level would be appropriate.

The term "similar" means that any observed difference between two estimates being compared is not statistically significant, but terms such as "greater," "less," "larger," and "smaller" indicate that the observed differences are statistically significant at the 0.05 level, by using a two-tailed t-test with 40 degrees of freedom. Statements about differences that are qualified in some way (e.g., by the phrases "the data suggest" or "some evidence") indicate that the difference is significant at the 0.10 level but not the 0.05 level.

When a substantial difference observed is found not to be statistically significant, one should not conclude that no difference exists, but simply that such a difference cannot be established with 95-percent •confidence from this sample. Lack of comment in the text about any two statistics does *not* mean that the difference was tested and found not to be significant.

The number of replicates in the balanced half-sample replication design (40 for Cycle II) can reasonably be used as an estimate of the number of degrees of freedom, although the exact value of the degrees of freedom is unknown. Therefore, in this report, differences between sample statistics are compared by using a two-tailed t-test with 40 degrees of freedom.

Example: In 1976, 29.0 percent of 24,795,000 currently married white women or their husbands had been surgically sterilized, compared with 21.6 percent of 2,169,000 currently married black women or their husbands. To test this racial difference at the 0.05 level of significance, compute

$$t = \frac{29.0 - 21.6}{\sqrt{(29.0)^2 \cdot RSE^2_{(29.0)} + (21.6)^2 \cdot RSE^2_{(21.6)}}}$$

By using the parameters from table I in the formula for the RSE of a percent,

$$RSE_{(29.0)} = \sqrt{\frac{7021.1665}{29.0} \cdot \frac{(100 - 29.0)}{24,795,000}}$$

$$= 0.026$$

and

$$RSE_{(21.6)} = \sqrt{\frac{2798.6440}{21.6} \cdot \frac{(100 - 21.6)}{2,169,000}}$$

$$= 0.068$$

Thus

$$t = \frac{29.0 - 21.6}{\sqrt{(29.0)^2 (0.026)^2 + (21.6)^2 (0.068)^2}}$$
$$= 4.48$$

The two-tailed 0.95 critical value $(1 - \alpha)$ for a t statistic with 40 degrees of freedom is 2.02. Therefore, the difference is significant at the 0.05 level.

Nonsampling error

Although sampling error affects the precision of reliability of survey estimates, nonsampling error introduces bias. To minimize nonsampling error,

stringent quality control procedures were introduced at every stage of the survey including a check on completeness of the household listing; extensive training and practice of interviewers; field editing of questionnaires; short verification interviews with a subsample of respondents; verification of coding and editing; an independent recode of a sample of questionnaires by NCHS; keypunch verification; and an extensive computer "cleaning" to check for inconsistent responses, missing data, and invalid codes. A detailed description of some of these procedures follows; others were previously discussed.

The results of any survey are subject to at least four types of potential nonsampling error including interview nonresponse; nonresponse to individual questions or items within the interview; inconsistency of responses to questions; and errors of recording, coding, and keying by survey personnel.

A discussion of interview nonresponse and item nonresponse follows. The third and fourth types of errors cannot be accurately measured, but the quality control procedures (some of which are discussed under "Measurement process" and "Data reduction") of the survey were designed to reduce such nonsampling errors to a minimum.

Interview nonresponse

Interview nonresponse occurs when no part of an interview is obtained. It can result from failures at any of three principal steps: (1) failing to list all households in sample segments, (2) failing to screen all listed households, and (3) failing to interview an eligible woman in each screened household. A discussion of these steps follows.

The completeness of listing cannot be tested directly because it requires an independent, accurate enumeration of the households that should have been listed. In the NSFG, listing completeness and accuracy were tested indirectly in two ways. First, an independent relisting of about 20 percent of the segments was performed, and any differences between the two lists were pointed out to listers by supervisory staff and reconciled. Second, listing accuracy was tested by the missed dwelling unit (DU) procedure at the time of screening: if the first structure in a segment was included in the sample, the whole segment was checked to see if any structures had been missed in the listing process; if the first structure was a multiple-DU structure, the entire structure was checked for missed DU's. About 700 dwelling units, or about 2 percent of the sample of DU's designated for screening, were included in the sample as a result of the missed DU procedure.

Of the original sample of 32,653 DU's screened, 5,490 were found vacant, not DU's, or group quarters. Of the remaining DU's, 6.2 percent were not screened successfully. This figure included 2.5 percent refusals

to have household members listed, 0.4 percent with language problems, 1.7 percent where no one could be found at home, and 1.7 percent for other reasons such as being refused access to the unit or because of illness.

Of the 25,480 households for which screening was completed, 10,202 were found to contain an eligible respondent. However, interviews were not completed in 11.8 percent of these cases because of refusals by the eligible respondents (5.8 percent), language problems (0.6 percent), no contact after repeated calls (1.8 percent), or other problems (3.6 percent).

The nonresponse adjustment for interview nonresponse described earlier imputes the characteristics of responding women of the same age group, race, marital status, and geographic area to nonresponding women.

Item nonresponse

Item nonresponse may have occurred when a respondent refused to answer a question or did not know the answer to a question, when the question was erroneously not asked or the answer was not recorded by the interviewer, or where the answer was not codable. Nonresponse to individual questions was very low in Cycle II, as in Cycle I. Some examples of item nonresponse among a total of 8,611 respondents are number of pregnancies, 3 cases; religion of respondent, 17 cases; religion of husband, 232 cases; education, 14 cases; occupation, 185 cases; and poverty level income, 1,348 cases. Most of the items with relatively high levels of missing data were characteristics of the respondent's current or last husband, and the sources and amount of income.

Unlike Cycle I of the NSFG, missing data items were not imputed in Cycle II, except for a few respondents with missing information on age and race, which were required for the nonresponse and poststratification adjustments. A small amount of missing data was tolerated in Cycle II to facilitate faster release of data and data tapes from the NSFG. Assignment of missing data codes and editing of selected variables was performed by the NSFG staff when necessary or desirable for analysis, as explained in the appropriate section of the definitions.

As with all survey data, responses to the NSFG are subject to possible deliberate misreporting by the respondent. Such misreporting cannot be detected directly, but it can be detected indirectly by the extensive computer "cleaning" and editing procedures used in the NSFG.

The 1965 National Fertility Study

The 1965 National Fertility Study (NFS) collected information on fertility and family planning from a nationally representative area probability sample of currently married women born since July 1, 1910 (15–

55 years of age) and living with their husbands in the conterminous United States. The survey was conducted by Norman B. Ryder and Charles F. Westoff of the Office of Population Research, Princeton University, under contract with the National Institute of Child Health and Human Development of the U.S. Public Health Service.

National Analysts, Inc. of Philadelphia drew the sample, conducted the interviews, edited and coded the questionnaires, and prepared the basic data file. A total of 5,617 women were interviewed, including 4,810 women 15–44 years of age. The interview completion rate in the NFS (the number of successfully completed interviews divided by the number of women eligible to be interviewed) was 88 percent. Of the 12 percent not interviewed, approximately two-thirds, or 8 percent, refused to be interviewed; the remaining 4 percent were cases in which no one was at home and other miscellaneous reasons. Further discussion of the design and conduct of the 1965 NFS may be found in the full report of the study.[28]

Standard errors

Standard errors for the 1965 NFS are measures of sampling variability—the variation that occurs because a sample of women (rather than all women) was interviewed. The chances are approximately 68 out of 100 that an estimate (a percent from the NFS) would differ from the actual population value by less than 1 standard error and approximately 95 out of 100 that the difference would be less than twice the standard error.

The contractor for the 1965 NFS produced tables of estimated standard errors, from which tables IV and V were derived. The number of sampled women on which the percents for 1965 are based are shown in appendix table VI. The weighted numbers of women on which the percents for 1976 (used in tables 15 and 16) are based are shown in appendix table VII.

NOTE: A list of references follows the text.

Table IV. Standard errors expressed in percentage points of estimated percents for currently married white women and women of all races combined: 1965 National Fertility Study

Size of sample	Estimated percent							
	5 or 95	10 or 90	15 or 85	20 or 80	25 or 75	30 or 70	40 or 60	50
	Standard error in percentage points							
50	3.1	4.3	5.1	5.7	6.2	6.6	7.0	7.2
75	2.6	3.5	4.2	4.7	5.1	5.4	5.8	5.9
100	2.2	3.1	3.7	4.1	4.4	4.7	5.0	5.1
150	1.8	2.5	3.0	3.4	3.7	3.9	4.2	4.2
200	1.6	2.2	2.6	3.0	3.2	3.4	3.6	3.7
250	1.5	2.0	2.4	2.7	2.0	3.1	3.3	3.3
300	1.3	1.9	2.2	2.5	2.7	2.8	3.0	3.1
400	1.2	1.6	1.9	2.2	2.4	2.5	2.7	2.7
500	1.1	1.5	1.8	2.0	2.2	2.3	2.4	2.5
600	1.0	1.4	1.7	1.9	2.0	2.1	2.3	2.3
800	0.9	1.3	1.5	1.6	1.8	1.9	2.0	2.1
1,000	0.8	1.1	1.4	1.5	1.7	1.8	1.9	1.9
1,500	0.7	1.0	1.2	1.3	1.4	1.5	1.6	1.7
2,000	0.7	0.9	1.1	1.2	1.3	1.4	1.5	1.5
2,500	0.6	0.9	1.0	1.2	1.2	1.3	1.4	1.4
3,000	0.6	0.8	1.0	1.1	1.2	1.3	1.3	1.4
3,500	0.6	0.8	0.9	1.1	1.1	1.2	1.3	1.3
3,841	0.6	0.8	0.9	1.0	1.1	1.2	1,3	1.3

Table V. Standard errors expressed in percentage points of estimated percents for currently married black women: 1965 National Fertility Study

Size of sample	Estimated percent							
	5 or 95	10 or 90	15 or 85	20 or 80	25 or 75	30 or 70	40 or 60	50
	Standard error in percentage points							
50	3.2	4.3	5.2	5.8	6.3	6.6	7.1	7.2
75	2.6	3.6	4.3	4.8	5.2	5.5	5.9	6.0
100	2.3	3.1	3.7	4.2	4.5	4.8	5.1	5.2
150	1.9	2.6	3.1	3.5	3.8	4.0	4.3	4.4
200	1.7	2.3	2.8	3.1	3.4	3.6	3.8	3.9
250	1.5	2.1	2.5	2.8	3.1	3.2	3.5	3.5
300	1.4	2.0	2.3	2.6	2.8	3.0	3.2	3.3
400	1.3	1.8	2.1	2.4	2.6	2.7	2.9	3.0
500	1.2	1.6	2.0	2.2	2.4	2.5	2.7	2.7
600	1.1	1.6	1.9	2.0	2.3	2.4	2.5	2.6
800	1.0	1.4	1.7	1.9	2.0	2.2	2.3	2.3
1,000	1.0	1.3	1.6	1.8	1.9	2.1	2.2	2.2

Table VI. Number of currently married women 15–44 years of age in the sample, by race, age, and parity: 1965 National Fertility Study

Age[1] and parity[2]	All races[3]	White	Black
	Number of women in sample		
15–44 years	4,810	3,771	969
15–19 years	212	155	54
20–24 years	855	641	203
25–29 years	851	651	183
30–34 years	964	762	185
35–39 years	923	741	172
40–44 years	1,005	821	172
All parities			
15–44 years	4,810	3,771	969
15–29 years	1,918	1,447	440
30–44 years	2,892	2,324	529
Parity 0–1			
15–44 years	1,318	1,032	272
15–29 years	782	636	136
30–44 years	536	396	136
Parity 2			
15–44 years	1,177	986	173
15–29 years	493	391	94
30–44 years	684	595	79
Parity 3 or more			
15–44 years	2,315	1,753	524
15–29 years	643	420	210
30–44 years	1,672	1,333	314

[1] Sample numbers for table 15.
[2] Sample numbers for table 16.
[3] Includes white, black, and other races.

Table VII. Weighted number of currently married women 15–44 years of age, by race, age, and parity: United States, 1976

Age[1] and parity[2]	All races[3]	White	Black
	Number of women in thousands		
15–44 years	27,488	24,795	2,169
15–19 years	1,043	918	99
20–24 years	4,977	4,493	410
25–29 years	6,443	5,806	484
30–34 years	5,736	5,187	428
35–39 years	4,814	4,339	368
40–44 years	4,474	4,051	381
All parities			
15–44 years	27,488	24,795	2,169
15–29 years	12,463	11,217	993
30–44 years	15,024	13,577	1,177
Parity 0–1			
15–44 years	10,805	9,796	768
15–29 years	8,037	7,341	526
30–44 years	2,766	2,455	242
Parity 2			
15–44 years	7,638	6,939	565
15–29 years	3,186	4,098	279
30–44 years	4,452	2,841	286
Parity 3 or more			
15–44 years	9,045	8,058	837
15–29 years	1,238	1,034	188
30–44 years	7,806	7,024	649

[1] Weighted numbers for table 15.
[2] Weighted numbers for table 16.
[3] Includes white, black, and other races.

Appendix II. Concepts and definitions

Reproductive impairments

Reproductive impairments were measured in this report using two slightly different classification schemes. Fecundity status, which is a demographic concept and makes full use of the data in the 1976 NSFG, was used in tables 1–14; and infertility status, which is a medical concept and allows unbiased measurement of the trend in the prevalence of difficulty in conceiving in 1965 and 1976, was used in tables 15–16. After a definition of fecundity, this appendix contains definitions of fecundity status and its categories, and then of infertility status and its categories.

Fecundity

Following standard demographic usage, fecundity refers to the ability (at the date of interview) of a currently married couple to reproduce, that is, to have live-born children; while "fertility" refers to "actual birth performance" or number of live births.[8] In this report any medical, physical, or behavioral condition that damages or diminishes a couple's fecundity—their ability to have children—is termed a reproductive impairment.

It is difficult to measure the fecundity of a population, and this is particularly true in household surveys that must rely on the reports of respondents. The principal difficulty in measuring fecundity is probably that some conditions have not been diagnosed or may be completely obscured by the use of contraception (including contraceptive sterilization) by couples who might otherwise have discovered an involuntary impairment. A woman or a couple is thus classified as fecund in the absence of any data to indicate sterility or any other reproductive impairment.

NOTE: A list of references follows the text.

Fecundity status

In reports from the National Survey of Family Growth, the classification of fecundity status is based on the answers women gave to a series of questions on whether, as far as they knew, it was possible or impossible, or difficult or not, to conceive a child or carry a pregnancy to live birth. In some cases, success in measuring fecundity depends on the amount of medical information respondents have about themselves, on their interest in having children in the future, and on the opportunities they have had to detect that a problem exists. However, most respondents were able to answer the relatively straightforward questions on reproductive impairments in the NSFG interview: whether or not they or their spouses had had sterilizing operations, accidents, or illnesses of diagnosed congenital problems; whether or not they had been trying to become pregnant and had not used contraception for a substantial period of time; and whether or not their physician had told them that they had medical conditions that would make having a child, or another child, difficult or dangerous. In this report, data are presented for currently married couples in which women have also provided information on their husbands' fecundity.

Fecundity status (tables 1–14) is classified in six categories: contraceptively sterile, surgically sterile for noncontraceptive reasons, nonsurgically sterile, long interval, subfecund, and fecund. For convenience and statistical reliability, the three categories of nonsurgically sterile, long interval, and subfecund have been combined under the heading of "impaired fecundity" in many of the tables.

Surgically sterile

A couple was classified as surgically sterile if the woman reported that it was impossible for them to have a baby or another baby because she or her husband had had a sterilizing operation. A surgically

sterile couple was further classified by the woman's answer to the question: "Was one reason for the operation because you had all the children you wanted?" An affirmative answer was classified as *surgically sterile—contraceptive* (in the text, "contraceptively sterile") and a negative answer as *surgically sterile—noncontraceptive* (in the text, "surgically sterile for noncontraceptive reasons").

Surgically sterile couples, who form the majority of those who are no longer fecund, are different from those who have "impaired fecundity" because their fecundity status is caused by surgery and because not all surgically sterile couples can be considered to have "impairments." In most cases, the surgery is undertaken for family planning rather than for therapeutic reasons; and in other cases there is probably a mixture of these motives. Surgical sterilization in which family limitation is the controlling motive ("contraceptively sterile") cannot properly be considered an impairment in fecundity or reproduction from the point of view of the sterile person or couple, except possibly in the instances in which a person or a couple subsequently regrets the operation and seeks a reversal. However, even these contraceptively sterile couples are not fecund, which is important from a demographic point of view.

Sterilizing operations in which therapeutic considerations were the controlling cause may properly be considered reproductive impairments because of their underlying causes. Although the question on the intent of sterilization operations may not permit identification of all sterilizations that were in part therapeutic, it is possible to identify the broadest level of reproductive impairments in which the involuntary limitation of childbearing may be involved by combining the "surgically sterile—noncontraceptive" with those in the general category of "impaired fecundity," as was done in a preliminary report on this subject.[1]

Nonsurgically sterile

Couples were classified as "nonsurgically sterile" if the woman reported that it was impossible for her or her husband to have a baby or another baby for some reason other than surgery—such as accident, illness, menopause, or congenital problem. A few women who had experienced at least 3 years of trying to become pregnant and not using contraception reported their conclusion that it was impossible for them to become pregnant, but these women are included in the "long interval" category.

Long interval

Couples were classified "long interval" because, while they reported no specific diagnostic cause, they

had experienced at least 3 years of unprotected intercourse without becoming pregnant. About 11 percent of these women reported that it was impossible for them to become pregnant in the future. The remainder were classified in this category simply because they reported no contraceptive use and no pregnancy in the 3 years of marriage preceding the survey. While some of these couples might conceive in the future, the general medical judgment is to consider 1 year of unprotected intercourse as evidence of reproductive impairment.[30,31]

Subfecund

Couples were classified as "subfecund" if the woman reported that the couple had difficulty in conceiving or delivering a baby or another baby, or that a pregnancy in the future would be so dangerous to the woman, the baby, or both that she would have a sterilizing operation or abortion. Subfecund couples are not sterile, but their ability to reproduce is diminished or impaired. For some couples subfecundity may be the basis for subsequent sterilizing operations.

Fecund

A couple was classified as "fecund" in tables 1–14 if the woman reported that (a) it was possible to have a baby or another baby; (b) there was no difficulty having a future baby; and (c) the couple had used contraception or the wife had been pregnant within the 3 years prior to the interview. This is a more restricted use of the term "fecund" than in previous NSFG reports,[6,12] which used the two-category classification "sterile" and "fecund." In previous reports "fecund" included most of those with long intervals as well as all nonsterile women who are classified in this report as fecund or subfecund.

In this report "fecund" is a residual category in the sense that, if there was no information that indicated any kind of reproductive impairment, couples were classified as fecund. Respondents were classified as surgically sterile, nonsurgically sterile, subfecund, long interval, and fecund in that order. For example, if the data necessary for the nonsurgically sterile category were missing, the case was next tested for the subfecund and then for the long interval categories. The chances of misclassification because of this procedure were virtually eliminated, however, since the classifications for all respondents were then checked for consistency with other information (for example, current contraceptive status); and all inconsistent cases were reconciled by using other information on the questionnaire. Through these procedures it was possible to classify all but 3 respondents (out of 8,611) by fecundity status. These three cases were included with fecund couples.

Infertility status

Following current medical usage, a couple is considered to have a problem of infertility subject to medical attention after 1 year of unsuccessful efforts to become pregnant.[29,30,31] Infertility status is used in tables 15 and 16 of this report because it was not possible to measure fecundity status in a comparable way with data from the 1965 National Fertility Survey (NFS) and from the 1976 NSFG. However, it was possible to measure infertility, as defined above, from the two surveys and to classify couples into one of three principal categories: surgically sterile, infertile, and fecund.

Surgically sterile

A couple was classified as surgically sterile in the same manner as is defined under fecundity status. However, because the contraceptive intent of sterilizing operations was not determined in completely comparable ways in the 1965 NFS and the 1976 NSFG, these operations are not classified by contraceptive intent in these comparisons over time. For a discussion of this issue, see reference 34.

Infertile

Couples who were not surgically sterile were classified as infertile if they (a) had been continuously married, (b) had not used contraception, and (c) had not become pregnant, for a year or more immediately preceding the interview. In addition, a few wives (0.3 percent in 1976 and 1.8 percent in 1965) who reported that it was physically impossible for them or their husband to have a baby, although they did not meet all three of the criteria for the infertile category, were included here.

Fecund

The category "fecund" is composed of those not classified as sterile or infertile and is therefore a residual group, as is the same category in the fecundity status classification. The proportions fecund in the infertility status classification in 1976 are slightly higher than the corresponding proportions classified by fecundity status. This difference between the two classifications appears to be due primarily to wives for whom it was difficult or dangerous to carry a pregnancy to live issue. Most such wives were classified as having impaired fecundity but would not be classified as "infertile" because they used contraception or had a pregnancy within the year before interview, even though the pregnancy may not have ended in a live birth.

NOTE: A list of references follows the text.

In 1976, 92 cases out of 6,482 (about 1.4 percent of married couples) could not be classified by infertility status because of missing data. Such couples were presumed to be fecund because no other information on their questionnaires indicated any evidence of surgical sterility or infertility.

Wanted to have a (or another) baby

Many couples who are sterile or who have impaired fecundity have already borne as many children as they want. Thus, to assess the potential need for medical research and services for reproductive impairments, it is useful to know the numbers of couples with impairments who would like to have a future child. Couples who were surgically sterilized for noncontraceptive reasons, who were nonsurgically sterile (including a few with long intervals who believed they were sterile), and the few who were subfecund and expected to have an operation or abortion to prevent or terminate another pregnancy were asked, "Even though it is unlikely or impossible for you to have a(nother) baby, would you like to have a(nother) baby?" Most subfecund couples and most of those with long intervals were asked, "Do you and your husband intend to have a(nother) baby?" Women answering "yes" to either question were classified as wanting a baby or another baby. Such couples may be viewed as needing medical services for their fecundity impairments.

A few women who indicated that having a baby or another baby was beyond their control—that they did not know if they intended to have a baby, that it was "up to God," and so forth—were also classified as "wanting another baby." They were so classified because it appeared on further analysis that they *wanted* a baby. They did not have an *intent* because they did not know whether it was possible to have a baby or another baby. In a preliminary report[1] these women were not counted as wanting a baby or another baby because the necessary analysis had not yet been undertaken.

Reported spontaneous pregnancy losses

These losses refer to the reported number of pregnancies that ended in a "miscarriage" or "stillbirth." There were 3,214 pregnancies not ending in live births reported by the 8,611 NSFG respondents. Of these, the outcomes of 14 pregnancies (less than 0.5 percent) were not ascertained and were excluded, as were the 357 reported induced abortions. Most of the remaining 2,843 pregnancies were reported as miscarriages. Cases of multiple losses or live births plus a loss were treated as one loss. Therefore, this is a count of the number of pregnancies ending in one or more spontaneous pregnancy losses rather than the total number of spontaneous fetal losses. In almost all cases,

however, the number of spontaneous fetal losses and the number of pregnancy losses is identical. In this report, "reported spontaneous pregnancy losses" excluded reported induced abortions; in two previous reports, the term "fetal losses" included reported induced abortions.[14,15]

Demographic characteristics

Parity

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

Years since wife's first marriage

This refers to the number of years between the wife's first marriage and the interview date.

Marital status

This report is based only on currently married women. Couples who are temporarily separated for reasons other than marital discord, such as vacation, illness, or Armed Forces, are classified as married.

Hispanic origin

A respondent was classified as being of Hispanic origin if she reported her origin or descent as Mexicano, Chicano, Mexican American, Puerto Rican, Cuban, or other Spanish regardless of whether she also mentioned any other origin.

In tables where data are presented for women according to race and Hispanic origin, those of Hispanic origin are included in the statistics for white and black women if they were identified as such by the interviewer.

Household population

The household population consists of persons living in households. A household is a person or a group of persons, where no more than five persons are unrelated to the head of the household, who occupy a room or group of rooms intended as separate living quarters; that is, the occupants do not live and eat with any other persons in the structure. Either direct access from the outside of the building or through a common hall, or complete kitchen facilities for the exclusive use of the occupants of the household must be present.

Region of residence

Data are classified by region of residence into the four major Census regions: Northeast, North Central, South, and West. Sample size greatly restricts the possibility of meaningful analyses by social character-

NOTE: A list of references follows the text.

istics among smaller geographic divisions. The areas comprising these four major geographic regions are as follows:

Geographic region and division	States included
Northeast	
New England	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut
Middle Atlantic	New York, New Jersey, Pennsylvania
North Central	
East North Central	Ohio, Indiana, Illinois, Michigan, Wisconsin
West North Central	Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas
South	
South Atlantic	Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida
East South Central	Kentucky, Tennessee, Alabama, Mississippi
West South Central	Arkansas, Louisiana, Oklahoma, Texas
West	
Mountain	Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada
Pacific	Washington, Oregon, California, Alaska, Hawaii

Alaska and Hawaii were not included in the sample for the NSFG.

Education

Education was classified according to the highest grade or year of regular school or college that was completed. Determination of the highest year of regular school or college completed by the respondent was based on responses to a series of questions concerning the last grade or year of school attended, whether that grade was completed, whether any other vocational or nonacademic schooling was obtained, and whether such other schooling was included in the years of regular school or college reported.

The term "high school" indicates that the woman completed high school; the term "less than high school" indicates that the woman did not complete high school; the term "more than high school" indicates that the woman completed at least 1 year of college.

Religion

Women were classified by religion in response to the question, "Are you Protestant, Roman Catholic, Jewish, or something else?" In addition to the three major religious groups, two other categories—other and none—were used.

Labor force status

A woman was categorized as being "in the labor force" if she was working full time or part time; if she had a job but was not at work because of temporary illness, vacation, or a strike; or if she was unemployed, laid off, or looking for work.

Poverty level income

The poverty index ratio was calculated by dividing the total family income by the weighted average threshold income of nonfarm families with the head of household 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.[39] This definition accounts for the sex of the family head and the number of persons in the family. Total family income includes income from all sources for all members of the respondent's family.

Poverty level income was not ascertained for 1,348 of 8,611 sampled women (16 percent), including 23 percent of sampled black women and 12 percent of sampled white women. Therefore, special care should be taken in interpreting small differences by poverty level income.

Occupation

Occupation was determined by asking women, "What (is/was) your (main) occupation? That is, what (is/was) your job called? What (are/were) your most important activities or duties? What kind of place (do/did) you work for? What do they make or do?" The answers to those questions were recorded verbatim and used by coders to find the most appropriate standard job title in the 1970 U.S. Census occupation classification. If the responses indicated more than one occupation, the primary occupation was coded. If none was primary, the first-mentioned occupation was coded. Although the classification used was very detailed, occupations have been grouped into major categories for this report, according to the practice of the U.S. Bureau of the Census.

NOTE: A list of references follows the text.

Appendix III. Items on the National Survey of Family Growth questionnaire related to reproductive impairments

SECTION D

We are talking with women about children they may have in the future, as well as about those they already have. (IF "R" HAS ALREADY MENTIONED STERILITY, MENOPAUSE, ETC.: I think we have already covered some of these next questions, but I'd better go through them with you to be sure that I record the answers correctly.)

D-1. It is physically impossible for some couples to have children. As far as you know, is it possible or impossible for you and your husband to conceive a(nother) baby, that is, to get pregnant (again)?

Possible. 1 (D-6)

Impossible. 2 (D-2) 13

Don't Know, Not Sure. 8 (D-6)

D-2. What is the reason that you are unable to have a(nother) baby? (RECORD VERBATIM ON LINES AT LEFT, CODE ALL THAT APPLY, THEN FOLLOW SKIP INSTRUCTION FOR SMALLEST CODE NUMBER. IF RESPONSE INDICATES A PROBLEM OTHER THAN STERILITY, CHANGE D-1 TO "POSSIBLE" AND GO TO D-6.)

14 15 16 17

"R" has had sterilizing operation. 01 (D-3)
Impossible for "R" due to accident or illness . . .02 (D-3)
"R" sterile for other reasons. 03 (D-3)
"R" has reached menopause . .04 (D-14)
Husband has had sterilizing operation. . . .05 (D-3)
Impossible for husband due to accident or illness .06 (D-3)
Husband sterile for other reasons. 07 (D-3)
Couple unable to conceive, don't know reason. . . . . .08 (Probe)

PROBE: How many years altogether have you gone without using any birth control method and still not become pregnant? (RECORD VERBATIM ON LINES AT LEFT AND ENTER NUMBER OF YEARS.)

_____ (Box 27A)
NO. OF YRS.

18 19

Box 27A. IF 3 YEARS OR LESS, SAY: I know that you've talked about the reasons that you haven't become pregnant but could you tell me a little bit more your difficulty in getting pregnant?

THEN CODE "YES" IN D-6 AND RECORD RESPONSE IN D-7.

IF MORE THAN 3 YEARS, CODE 6 IN D-3 AND CONTINUE.

D-3.	D-4.	D-5.
(ASK QUESTION ONLY IF D-2 IS FEMALE OPERATION; OTHERWISE, CODE WITHOUT ASKING.) What kind of operation was it?	CHOOSE APPROPRIATE QUESTION: (A) When was the operation done? (B) When did (you/your husband) become sterile? (If D.K., PROBE:. . . learn of the sterility)	Was one reason for the operation because you had all the children you wanted?
One ovary removed ("R" not sterile) . . . ◯	→CHECK THE APPROPRIATE CIRCLE IN D-3 AND PROBE TO FIND OUT IF SHE IS SURE THAT SHE IS STERILE.	
One tube tied or removed ("R" not sterile) . . . ◯	If she is sure, circle Code "6 - other reasons" in D-3 and follow the appropriate skip instruction for that category. If she is not sure, record her answer verbatim and skip to D-8.	
Both ovaries removed. 1 (D-4A)	___/___ MONTH / YEAR (D-5)	Yes . . . 1 (D-76) No. . . . 2 (D-14)
Both tubes tied or removed 2 (D-4A)	___/___ MONTH / YEAR (D-5)	Yes . . . 1 (D-76) No. . . . 2 (D-14)
Hysterectomy (Removal of uterus). 3 (D-4A)	___/___ MONTH / YEAR (D-5)	Yes . . . 1 (D-76) No. . . . 2 (D-14)
Vasectomy (cutting male sperm ducts) . . . 4 (D-4A)	___/___ MONTH / YEAR (D-5)	Yes . . . 1 (D-76) No. . . . 2 (D-14)
Other operation or type unknown . . . 5 (D-4A)	___/___ MONTH / YEAR (D-5)	Yes . . . 1 (D-76) No. . . . 2 (D-14)
Accident, illness or other reasons. . . 6 (D-4B)	___/___ MONTH / YEAR (D-14)	

20
20 ☐   21—24 ☐☐☐☐ 25 ☐

D-6. Some people are able to have a(nother) baby, but they have <u>difficulty</u> getting pregnant or holding onto the baby. As far as you know, is there any problem or difficulty for you and your husband to conceive or deliver a(nother) baby?

Yes 1 (D-7)   26
No 2 (D-8)

D-7. What is the reason it would be difficult for you to have a(nother) baby? (RECORD VERBATIM ON LINES AT LEFT AND CIRCLE APPROPRIATE CODE BELOW.)

_____   <u>Physical</u> difficulty getting
_____   pregnant 1
_____   Difficult for husband to
_____   father child 2
_____   Dangerous for "R" to
_____   become pregnant (again). . . 3
_____   Dangerous to the baby 4   27
_____   Difficult to carry
_____   pregnancy full 9 months. . . 5
_____   Other 6

D-8. At any time has a medical doctor advised you <u>never</u> to become pregnant (again)?

Yes 1 (D-9)   28
No . . . . 2 (Box 28)

D-9. Did he or she say it would be dangerous for you, and/or for the baby, or was it for some other reason?

Dangerous for R 1
Dangerous for baby. 2
Dangerous for both. 3   29
Other reason (SPECIFY)_____
_____ 4

D-10. When did you talk with the doctor about this?

30 31 32 33
[ ][ ][ ][ ]

———————————————/————————————
MONTH   YEAR

D-11. Will you have an operation to be sure you don't become pregnant (again)?

Yes 1 (D-14)
No 2 (D-12)   34
Maybe 3 (D-12)

D-12. Will your husband have an operation to be sure you don't become pregnant (again)?

Yes 1 (D-14)
No 2 (D-13)   35
Maybe 3 (D-13)

D-13. If (after this baby is born) you find that you are pregnant (again), will you have the pregnancy ended by a doctor for health or medical reasons?

Yes 1 (D-14)
No . . . . 2 (Box 28)   36
Maybe . . . . 3 (Box 28)

D-14. Even though it is unlikely or impossible for you to have a(nother) baby, would you <u>like</u> to have a(nother) baby (after this one)?

Yes 1   37
No 2

D-15. Would your husband <u>like</u> a(nother) baby?

Yes 1
No 2   38
Don't Know. 8

D-16. (Since/If) you and your husband are <u>unable</u> to have a(nother) baby, do you intend to adopt any children?

Yes . . . . 1 ⎫
No . . . . 2 ⎬ (D-76)   39
Maybe . . . . 3 ⎭

Box 28. IF R IS CURRENTLY PREGNANT, SKIP TO D-41; OTHERWISE, CONTINUE.

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