

Women by Number of Children Ever Born

GENERAL

This report presents national, regional, and State statistics on the fertility of women in terms of their number of children ever born, by demographic, social, and economic characteristics of the women and their families. The statistics are based on samples of the population enumerated in the Eighteenth Decennial Census of Population, taken as of April 1, 1960. Most of the statistics are based on a 5-percent sample, but some are based on a 25-percent sample, and a few on a 4-percent sample, as specified in the headnotes of the tables.

RELATED MATERIALS

1960 Census reports.--Statistics on ever-married women of three childbearing age groups by number of children ever born may be found in chapter C of Parts 1 through 52 of 1960 Census of Population, Volume I, Characteristics of the Population, for the United States, each of the States, the District of Columbia, counties, standard metropolitan statistical areas, urbanized areas, and urban places of 10,000 or more. Chapter D of Volume I presents more extensive age detail than chapter C for women 15 years old and over by number of children ever born and also by number of own children under 5 years old, for States and their urban and rural parts, and for standard metropolitan statistical areas of 250,000 or more. Ratios of population under 5 years old to the total female population 15 to 49 years old are shown for a wide variety of areas in chapter B of Volume I.

Additional statistics on fertility by social and economic characteristics of the population appear in other PC(2) and PC(3) reports.

1950 Census reports.--The report 1950 Census of Population, Volume IV, Special Reports, Part 5, chapter C, Fertility, presented national statistics on number of children ever born and on number of own children under 5 years old, for women by age, color, marital status, and urban-rural residence, in relation to duration of marriage, labor force status of the woman, years of school completed by the woman, and

major occupation group of husband in the experienced civilian labor force. The report also presented data on children ever born for States and their urban and rural parts, and for persons of Spanish surname in five Southwestern States. An appendix presented material on quality of data.

Additional material on children ever born by duration of marriage was presented in 1950 Census of Population, Series PC-14, No. 22.

Current Population Reports.--Data on fertility are occasionally published in Current Population Reports, Series P-20, usually at two- or three-year intervals. These data are based on the Current Population Survey, a monthly sample of about 35,000 households. For example, the report Series P-20, No. 108, "Marriage, Fertility, and Childspacing: August 1959," presents data on number of children ever born and also data on cumulative fertility at successive ages and marriage durations of cohorts of women in past years, derived from data on date of birth of each child and date of woman's first marriage.

AVAILABILITY OF UNPUBLISHED DATA

The data based on the 5-percent sample presented here for the United States and regions were also tabulated for each State but not published. The unpublished data, which are on magnetic computer tape, can be made available on a reimbursable basis. Inquiries concerning unpublished data should be transmitted to the Bureau as soon as possible because tape records are not maintained indefinitely. Requests for unpublished data, giving a specific description of the figures desired may be made by writing to the Chief, Population Division, Bureau of the Census, Washington, D.C., 20233.

Some of the tables in the present report show data only for the United States, urbanized areas, and the South. Data for that part of the Nation outside urbanized areas and for the North and West (combined) can be derived by subtraction.

DEFINITIONS AND EXPLANATIONS

Some of the definitions used in 1960 differ from those used in 1950. These changes were made after consultation with users of census data in order to improve the statistics, even though it was recognized that comparability would be affected. The definitions and explanations should be interpreted in the context of the 1960 Censuses, in which data were collected by

a combination of self-enumeration, direct interview, and observation by the enumerator.

The definitions below are consistent with the instructions given to the enumerator. As in all surveys, there were some failures to execute the instructions exactly. Through the forms distributed to households, the respondents were given explanations of some of the

questions more uniformly than would have been given in direct interviews. Nevertheless, it was not feasible to give the full instructions to the respondents, and some erroneous replies have undoubtedly gone undetected.

More complete discussions of the definitions of population and housing items are given in 1960 Census of Population, Volume I, Characteristics of the Population, Part 1, United States Summary, and each of the State parts and in 1960 Census of Housing, Volume I, States and Small Areas.

CHILDREN EVER BORN

The data on children born were derived from answers to the following question on the Household Questionnaire:

P20. If this is a woman who has ever been married—
How many babies has she ever had, not counting stillbirths?
Do not count her stepchildren or adopted children.
 OR None...
 (Number)

Although the question on children ever born was asked only of women reported as having been married, the number of children reported undoubtedly includes some illegitimate births. It is likely that many of the unwed mothers living with an illegitimate child reported themselves as having been married and therefore were among the women who were expected to report the number of children ever born, and that many of the mothers who married after the birth of an illegitimate child counted that child (as they were expected to do). On the other hand, the data are, no doubt, less complete for illegitimate than for legitimate births. Consequently, the rates of children ever born per 1,000 total women may be too low. The enumerator was instructed to include children born to the woman before her present marriage, children no longer living, and children away from home, as well as children borne by the woman who were still living in the home.

The FOSDIC form used for transferring sample data to the electronic computer tape contained a terminal category of "12 or more" children ever born. For purposes of computing the total number of children ever born, the terminal category was given a mean value of 13. Also for purposes of computation, women reported as never married were assumed to have borne no children.

As the terms are used in the present report, "childless" women are those who have borne no children and "mothers" are those who have borne one or more.

Comparability and Quality of Data

Previous censuses.—In general, rates of children ever born based on the 1960 Census have a high degree of comparability with similar data from previous censuses. This point is illustrated by the near agreement of fertility rates for the survivors of cohorts of women of substantially completed fertility at suc-

cessively older ages in successive censuses, shown in table A. Near agreement occurs in the rates for 1940, 1950, and 1960 despite the effect of many factors that would be expected to cause some difference, such as sampling variability, variations in question wording and in processing of data, variation in the completeness of reporting on number of children ever born, and the effect of such other factors as immigration and differential mortality.

Table A.--CHILDREN EVER BORN PER 1,000 WOMEN AT SPECIFIED AGES IN 1910, 1940, 1950, and 1960, FOR CONTERMINOUS UNITED STATES

Census	Age of woman	Number of women	Children ever born	
			Per 1,000 total women	Per 1,000 women ever married
1950....	40 to 44 years....	5,032,810	2,170	2,364
1960....	50 to 54 years....	4,917,741	2,173	2,353
1950....	45 to 49 years....	4,480,170	2,292	2,492
1960....	55 to 59 years....	4,399,358	2,284	2,489
1940....	40 to 44 years ¹ ...	4,327,960	2,490	2,754
1950....	50 to 54 years....	4,077,240	2,497	2,706
1960....	60 to 64 years....	3,719,035	2,502	2,710
1940....	45 to 49 years ¹ ...	4,001,300	2,740	2,998
1950....	55 to 59 years ² ...	3,567,120	2,728	2,954
1910....	40 to 44 years ³ ...	2,474,939	3,904	4,383
1940....	70 to 74 years ³ ...	1,284,020	3,470	3,901

¹ Rates shown for women under 50 in 1940 include estimates of children ever born for women with no report and therefore differ from those published in the 1940 Census reports.

² Data not available for women 65 to 69 years old in 1960.

³ Rates shown for women 40 to 44 years old in 1910 and 70 to 74 years old in 1940 exclude women with no report on children ever born.

The near agreement of the fertility rates for censuses since 1940 indicate that variations in question wording for the item on children ever born probably had little effect on quality of the data. The data from the 1910 Census, however, compare less well with those for 1940. The 1910 Census may have included a considerable number of stillbirths as well as live births in the count of children ever born; the 1910 questions were (1) "Mother of how many children?" and (2) "Number now living?"

Current Population Survey.—Rates of children ever-born based on the 1960 Census and those based on the August 1959 Current Population Survey are generally in very close agreement. For example, the 1960 Census shows, for conterminous United States (25-percent sample data), 2,575 children ever born per 1,000 white women 35 to 44 years old who have ever married; the corresponding figure from the Current Population Survey (CPS) is 2,577. For nonwhite women, the corresponding figure from the 1960 Census is 3,061, and that from the Current Population Survey is 3,051. The generally close agreement of 1960 Census data and August 1959 CPS data occurred despite the fact that the CPS asked additional questions that tended to improve the completeness of the count of children ever born, namely, questions on birth dates of children and on whether they were present or absent from home.

Birth registration data.—Demographers who have cumulated birth registration data over time for cohorts

of women have generally estimated from 2 to 5 percent more children per woman than are shown in the 1950 Census data. (Final comparisons were not available for 1960 at the time this text was written.) The birth registration data include relatively more illegitimate births than the census data.

Some other comparisons of census or survey data with birth registration data may be found in the appendix of 1950 Census of Population, Volume IV, Special Reports, Part 5, chapter C, Fertility, and in Current Population Reports, Series P-20, No. 108. These materials also show that the number of children ever born tends to be lower in census or survey data than in birth records; the data for whites are generally of much better quality than those for nonwhites.

Content Evaluation Study.--Information on the quality of data for 1960 on children ever born is available from findings of a content evaluation study of the 1960 Census, entitled "The Accuracy of Population Characteristics as Measured by Intensive Reinterview." In this study (Study EP-10), measures of response error were developed with respect to selected items of information by comparing and reconciling the responses obtained in the reinterview with the corresponding census entries.

In Study EP-10, women ever married were asked about children who had died or left home and about adoptions and stepchildren; these questions were used to provide more definitive information than that in the census on the number of children actually born to each woman in the sample. The data from the reinterview were compared with 1960 Census data for the identical women. Comparisons made thus far indicate that exact agreement on the number of children ever born occurred for 91.9 percent of the women with a report in both surveys; the reinterview count was higher than the census count for 5.4 percent, and lower for 2.8 percent. The total number of children ever born to these women shown by the census was 1.7 percent smaller than that shown by the reinterview.

CONTERMINOUS UNITED STATES

The term "United States" refers to the 50 States and the District of Columbia. The term "conterminous United States" refers to the United States exclusive of Alaska and Hawaii.

URBAN-RURAL RESIDENCE

In general, the urban population comprises all persons living in urbanized areas and in places of 2,500 inhabitants or more outside urbanized areas. More specifically, according to the definition adopted for use in the 1960 Census, the urban population comprises all persons living in (a) places of 2,500 inhabitants or more incorporated as cities, boroughs, villages, and towns (except towns in New England, New York, and Wisconsin); (b) the densely settled urban fringe, whether incorporated or unincorporated, of urbanized areas; (c) towns in New England and townships in New Jersey and Pennsylvania which contain no incorporated municipalities as subdivisions and have either 25,000 inhabitants or more or a population of

2,500 to 25,000 and a density of 1,500 persons or more per square mile; (d) counties in States other than the New England States, New Jersey, and Pennsylvania that have no incorporated municipalities within their boundaries and have a density of 1,500 persons or more per square mile; and (e) unincorporated places of 2,500 inhabitants or more. The population not classified as urban constitutes the rural population.

FARM-NONFARM RESIDENCE

The rural population is subdivided into the rural-farm population, which comprises all rural residents living on farms, and the rural-nonfarm population, which comprises the remaining rural population. In the 1960 Census, the farm population consists of persons living in rural territory on places of 10 or more acres from which sales of farm products amounted to \$50 or more in 1959 or on places of less than 10 acres from which sales of farm products amounted to \$250 or more in 1959. All persons living in group quarters are classified as nonfarm except the relatively few living in workers' quarters (including quarters for migratory agricultural workers) that are located on a farm or ranch.

URBANIZED AREA

An urbanized area contains at least one city of 50,000 inhabitants or more in 1960 and the surrounding closely settled incorporated places and unincorporated areas that meet certain criteria relating to population density or land use. An urbanized area may be thought of as divided into the central city, or cities, and the remainder of the area, or the urban fringe. All persons residing in an urbanized area are included in the urban population.

METROPOLITAN-NONMETROPOLITAN RESIDENCE

In this report, women shown as residing in a "metropolitan area" are those living in a standard metropolitan statistical area (SMSA). Except in New England, an SMSA is a county or group of contiguous counties which contains at least one city of 50,000 inhabitants or more, or "twin cities" with a combined population of at least 50,000. In addition to the county, or counties, containing such a city or cities, contiguous counties are included in an SMSA if, according to certain criteria, they are essentially metropolitan in character and are socially and economically integrated with the central city. In New England, SMSA's consist of towns and cities, rather than counties.

The population inside SMSA's is further classified as "in central city" and "in ring" (outside central cities). With a few exceptions, central cities are determined according to the following criteria:

1. The largest city in an SMSA is always a central city.
2. One or two additional cities may be secondary central cities on the basis of, and in the order of, the following criteria:
 - a. The additional city or cities have at least 250,000 inhabitants.

b. The additional city or cities have a population of one-third or more of that of the largest city and a minimum population of 25,000.

AGE

The age classification is based on the age of the person in completed years as of April 1, 1960, as determined from the reply to a question on month and year of birth.

RACE AND COLOR

The term "color" refers to the division of population into two groups, white and nonwhite. The color group designated as "nonwhite" consists of such races as the Negro, American Indian, Japanese, Chinese, Filipino, Korean, Hawaiian, Asian Indian, Eskimo, Aleut, and Malayan races. Persons of Mexican birth or ancestry who are not definitely of Indian or other nonwhite race are classified as white.

Negro.--In addition to persons of Negro and of mixed Negro and white descent, this classification includes persons of mixed Indian and Negro descent, unless the Indian ancestry predominates or unless the individual is regarded as an Indian in the community.

American Indian.--In addition to fullblooded Indians, persons of mixed white and Indian blood are included if the proportion of Indian blood is one-fourth or more, or if they are regarded as Indian in the community. Indians living in Indian territory or on reservations were not included in the population until 1890.

Other races.--Separate statistics are given in this report for Japanese and Chinese. The category "other races" includes Filipinos, Koreans, Hawaiians, Asian Indians, Eskimos, Aleuts, Malaysians, etc.

Mixed parentage.--Persons of mixed racial parentage are classified according to the race of the nonwhite parent, and mixtures of nonwhite races are classified according to the race of the father, with the special exceptions noted above.

NATIVITY AND PARENTAGE

Native.--This category comprises persons born in the United States, the Commonwealth of Puerto Rico, or a possession of the United States; persons born in a foreign country or at sea who have at least one native American parent; and persons whose place of birth was not reported and whose census report contained no contradictory information, such as an entry of a language spoken prior to coming to the United States.

Foreign born.--This category includes all persons not classified as native.

Native of native parentage.--This category consists of native persons both of whose parents are also natives of the United States.

Native of foreign or mixed parentage.--This category includes native persons one or both of whose parents are foreign born.

Foreign stock.--This category includes foreign-born persons and native persons of foreign or mixed parentage.

COUNTRY OF ORIGIN OF THE FOREIGN STOCK

Persons of foreign stock are classified according to their country of origin--country of birth for the foreign born and parents' country of birth for the native of foreign or mixed parentage. Natives of foreign parentage whose parents were born in different countries are classified according to the country of birth of the father. Natives of mixed parentage are classified according to the country of birth of the foreign-born parent. The classification by country of origin is based on international boundaries as recognized by the United States Government on April 1, 1960, although there may have been some deviation from the rules where respondents were unaware of changes in boundaries or jurisdiction.

REGION OF BIRTH OF THE NATIVE POPULATION

In this report, the native population is classified by region of birth. Included in the totals, but not shown separately, are native persons born in an outlying area of the United States, persons born abroad or at sea of American parents, and persons whose State of birth was not reported. The 1960 instructions specified that place of birth was to be reported in terms of the mother's usual State of residence at the time of the birth rather than in terms of the location of the hospital if the birth occurred in a hospital.

PERSONS OF SPANISH SURNAME AND
PUERTO RICANS

In order to obtain data on Spanish- and Mexican-Americans for areas of the United States where most of them live, white persons of Spanish surname were identified separately during the processing operations for five Southwestern States (Arizona, California, Colorado, New Mexico, and Texas). Puerto Ricans comprise persons born in Puerto Rico and persons born in the United States or its possessions with one or both parents born in Puerto Rico.

RESIDENCE IN 1955

Residence on April 1, 1955, is the usual place of residence five years prior to enumeration. The category "same house as in 1960" includes all persons 5 years old and over who were reported as living in the same house on the date of enumeration in 1960 and five years prior to enumeration. Included in the group are persons who had never moved during the five years as well as those who had moved but by 1960 had returned to their 1955 residence. The category "different house in the U.S." includes persons who, on April 1, 1955, lived in the United States in a different house from the one they occupied on April 1, 1960. This category was subdivided into three groups according to their 1955 residence, viz., "different house, same county," "different county, same State," and "different State." The category "abroad" includes those with residence in

a foreign country or an outlying area of the United States in 1955. (In the coding of this item, persons who lived in Alaska or Hawaii in 1955 but in other States in 1960 were classified as living in a different State in 1955.) Persons 5 years old and over who had indicated they had moved into their present residence after April 1, 1955, but for whom sufficiently complete and consistent information regarding residence on April 1, 1955, was not collected are included in the group "moved, place of residence in 1955 not reported."

The classification of persons by metropolitan-nonmetropolitan residence in 1955 is based on whether or not those persons were residing in an area that qualified as an SMSA in the 1960 Census.

In preparing the record for the 5-percent sample, on which table 13 is based, all movers from one borough to another within New York City were classified as movers within the "same county," whereas in reports based on the 25-percent record, persons who moved across borough lines were classified as movers between counties within the "same State." Hence, the 5-percent sample shows more women who were movers within the same county than would be shown in corresponding figures from the 25-percent sample, and fewer migrants between counties within the same State. This difference should have little influence on the fertility characteristics of women in the various mobility status classes.

YEARS OF SCHOOL COMPLETED

The data on years of school completed were derived from the answers to the two questions: (a) "What is the highest grade (or year) of regular school he has ever attended?" and (b) "Did he finish this grade (or year)?" Enumerators were instructed to obtain the approximate equivalent grade in the American school system for persons whose highest grade of attendance was in a foreign school system, whose highest level of attendance was in an ungraded school, whose highest level of schooling was measured by "readers," or whose training by a tutor was regarded as qualifying under the "regular" school definition. Persons were to answer "No" to the second question if they were attending school, had completed only part of a grade before they dropped out, or failed to pass the last grade attended.

The number in each category of highest grade of school completed represents the combination of (a) persons who reported that they had attended the indicated grade and finished it, and (b) those who had attended the next higher grade but had not finished it.

The questions on educational attainment applied only to progress in "regular" schools. Regular schooling is that which may advance a person toward an elementary school certificate or high school diploma, or a college, university, or professional degree. Schooling that was not obtained in a regular school and schooling from a tutor or through correspondence courses were counted only if the credits obtained were regarded as transferable to a school in the regular school system. Schooling which is generally regarded as not regular includes that which is given in nursery

schools, in specialized vocational, trade, or business schools; in on-the-job training; and through correspondence courses.

Elementary school, as defined here, includes grades 1 to 8, and high school includes grades 9 to 12. College includes junior or community colleges, regular 4-year colleges, and graduate or professional schools.

MARITAL STATUS AND WHETHER MARRIED MORE THAN ONCE

This classification refers to the marital status of the person at the time of enumeration. Persons classified as "married" comprise, therefore, both those who have been married only once and those who remarried after having been widowed or divorced. Persons reported as separated (either legally separated or otherwise absent from the spouse because of marital discord) are classified as a subcategory of married persons with spouse absent. The enumerators were instructed to report persons in common-law marriages as married and persons whose only marriage had been annulled as single. Persons "ever married" are those in the categories married (including separated), widowed, and divorced.

A married woman with "husband present" is a woman whose husband was enumerated as a member of the same household even though he may have been temporarily absent on business or vacation, visiting, in a hospital, etc., at the time of enumeration. Women classified as "married, husband absent" include both those who are separated and those with their husband absent for other reasons.

Whether or not the woman was married more than once was determined by a direct question for all women ever married.

YEAR OF FIRST MARRIAGE, YEARS SINCE FIRST MARRIAGE, AND AGE AT FIRST MARRIAGE

In the 1960 Census, persons in the sample who had ever been married were asked the date of their first marriage; this information was tabulated in terms of year or quarter and year. Thus, direct information was obtained for this report on year of first marriage for persons married (including separated), widowed, or divorced. All women who first married in the same period may be regarded as members of the same marriage cohort.

The number of years since the woman's first marriage was derived by subtraction of the date of first marriage from April 1, 1960, and represents the interval in completed years since first marriage.

Age at first marriage was derived by subtraction of the date of first marriage from the woman's birth date, and represents age in completed years at first marriage.

HOUSEHOLD, HOUSING UNIT, AND INSTITUTION

A household consists of all the persons who occupy a housing unit. A house, an apartment or other group of rooms, or a single room, is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters; that is, when the

occupants do not live and eat with any other persons in the structure and there is either (1) direct access from the outside or through a common hall or (2) a kitchen or cooking equipment for the exclusive use of the occupants.

All persons who are not members of households are regarded as living in group quarters. Group quarters are living arrangements for institutional inmates or for other groups containing five or more persons unrelated to the person in charge. Most of the persons in group quarters live in rooming houses, college dormitories, military barracks, or institutions. Inmates of institutions are persons for whom care or custody is provided in such types of places as mental hospitals; homes and schools for the mentally or physically handicapped; places providing specialized medical care for persons with tuberculosis, or other chronic disease; nursing and domiciliary homes for the aged and dependent; and prisons and jails.

For persons in households, several categories of relationship to head of household are recognized in this report:

1. The head of the household is the member reported as the head by the household respondent. However, if a married woman living with her husband is reported as the head, her husband is classified as the head for the purpose of census tabulations.

2. The wife of a head of a household is a woman married to and living with a household head. This category includes women in common-law marriages as well as women in formal marriages.

3. A daughter of the head is a child, stepchild, or adopted child of the head of the household. A daughter-in-law is the wife of the head's son; stepson, or adopted son.

4. As used in this report, an other relative of the head is a woman related to the head of the household by blood, marriage, or adoption, but not included specifically in one of the other categories.

5. A nonrelative of the head is any member of the household who is not related to the household head. This category includes lodgers (roomers and partners, relatives of such persons, and foster children) and resident employees (maids, hired farm hands, etc.).

FAMILY

A family consists of two or more persons in the same household who are related to each other by blood, marriage, or adoption. All persons living in one household who are related to each other are regarded as one family.

OWN CHILD

In tables 48 and 49, women are classified by presence of "own" children in the home. An own child of a woman is defined here as a son, daughter, stepchild, or adopted child of the woman in question. The relationship detail available did not usually permit a distinction between children actually born to the woman, on the one hand, and stepchildren and adopted children on the other hand. Hence, the data in tables 48 and 49 tend to overstate slightly the proportion of the woman's sons and daughters actually present.

EMPLOYMENT STATUS

The data on employment status relate to the calendar week prior to the date on which the respondents filled their Household Questionnaires or were interviewed by enumerators. This week is not the same for all respondents because not all persons were enumerated during the same week.

Employed persons comprise all civilians 14 years old and over who were either (a) "at work"--those who did any work for pay or profit, or worked without pay for 15 hours or more on a family farm or in a family business; or (b) were "with a job but not at work"--those who did not work and were not looking for work but had a job or business from which they were temporarily absent because of bad weather, industrial dispute, vacation, illness, or other personal reasons.

Persons are classified as unemployed if they were 14 years old and over and not "at work" but looking for work. A person is considered as looking for work not only if he actually tried to find work but also if he had made such efforts recently (i.e., within the past 60 days) and was awaiting the results of these efforts. Persons waiting to be called back to a job from which they had been laid off or furloughed are also counted as unemployed.

The "civilian labor force" includes all persons classified as employed or unemployed, as described above. The "labor force" also includes members of the Armed Forces (persons on active duty with the United States Army, Air Force, Navy, Marine Corps, or Coast Guard).

Persons "not in the labor force" comprise all those 14 years old and over who are not classified as members of the labor force, including persons doing only incidental unpaid family work (less than 15 hours during the week).

FULL-TIME AND PART-TIME WORKERS

The classification of persons at work into full-time and part-time workers is based on data on hours worked. Persons are considered to be working full time if they worked 35 hours or more during the reference week and part time if they worked less than 35 hours. The statistics on hours worked pertain to the number of hours actually worked, and not necessarily to the number usually worked or the scheduled number of hours. For persons working at more than one job, the figures reflect the combined number of hours worked at all jobs during the week.

YEAR LAST WORKED

The "year last worked" pertains to the most recent year in which a person did any work for pay or profit, or worked without pay on a family farm or in a family business. Active service in the Armed Forces is also included.

OCCUPATION

The data on occupation in this report are for employed persons and refer to the job held during the week for which employment status was reported. For

persons employed at two or more jobs, the data refer to the job at which the person worked the greatest number of hours. The occupation statistics presented here are based on the detailed systems developed for the 1960 Census; see 1960 Census of Population, Classified Index of Occupations and Industries, U.S. Government Printing Office, Washington, D.C., 1960.

INCOME IN 1959

Information on income for the calendar year 1959 was requested from all persons 14 years old and over in the sample. "Total income" is the sum of amounts reported separately for wage or salary income, self-employment income, and other income. Wage or salary income is defined as the total money earnings received for work performed as an employee. It represents the amount received before deductions for personal income taxes, Social Security, bond purchases, union dues, etc. Self-employment income is defined as net money income (gross receipts minus operating expenses) from a business, farm, or professional enterprise in which the person was engaged on his own account. Other income includes money income received from such sources as net rents, interest, dividends, Social Security benefits, pensions, veterans' payments, unemployment insurance, and public assistance or other governmental payments, and periodic receipts from insurance policies or annuities. Not included as income are money received from the sale of property (unless the recipient was engaged in the business of selling such property), the value of income "in kind," withdrawals of bank deposits, money borrowed, tax refunds, and gifts and lump-sum inheritances or insurance payments.

In the statistics on family income, the combined incomes of all members of each family are treated as a single amount. Although the time period covered by the income statistics is the calendar year 1959, the composition of families refers to the time of enumeration. For most of the families, however, the income reported was received by persons who were members of the family throughout 1959.

HOUSING CHARACTERISTICS

Tenure.--A housing unit is "owner occupied" if the owner or co-owner lives in the unit, even if it is mortgaged or not fully paid for. The head himself need not be the owner. All other occupied units are classified as "renter occupied," whether or not cash rent is paid. Examples of units for which no cash rent is paid include units occupied in exchange for services rendered, units owned by relatives and occupied without payment of rent, and units occupied by sharecroppers.

Rooms.--The number of rooms is the count of whole rooms used for living purposes, such as living rooms, dining rooms, bedrooms, kitchens, finished attic or basement rooms, recreation rooms, lodgers' rooms, and rooms used for offices by a person living in the unit. Not counted as rooms are bathrooms; halls, foyers, or vestibules; closets; alcoves; pantries; strip or pull-man kitchens; laundry or furnace rooms; unfinished attics, basements, and other space used for storage.

Persons per room.--The number of persons per room was computed by dividing the total number of household members by the number of rooms in the unit.

Units in structure.--In determining the number of units in the structure, the enumerator was instructed to count both occupied and vacant housing units but not to count business units or group quarters. A structure is defined as a separate building that either has open space on all four sides, or is separated from other structures by dividing walls that extend from ground to roof. Structures containing only one housing unit were further classified as detached or attached.

A 1-unit detached structure has open space on all four sides and contains only one housing unit. A 1-unit attached structure contains only one housing unit and has one or more walls extending from ground to roof separating it from adjoining structures. For row houses, double houses, or houses attached to nonresidential structures, each house is a separate attached structure if the dividing or common wall goes from ground to roof.

Direct access.--Living quarters are regarded as having direct access if the entrance is direct from the outside of the structure, or through a common hall, lobby, or vestibule used by the occupants of more than one unit. The hall, lobby, or vestibule must not be part of any unit, but must be clearly separate from all units in the structure. Living quarters do not have direct access when the only entrance to the room or rooms is through a room or hall which is part of another unit.

Kitchen or cooking equipment.--A kitchen is defined as a room used primarily for cooking and the preparation of meals. Cooking equipment is defined as (1) a range or stove, whether or not it is regularly used, or (2) other equipment such as a hotplate or electrical appliance if it is used for the regular preparation of meals. The category "with kitchen or cooking equipment" comprises units with facilities for exclusive use; the category "lacking kitchen or cooking equipment" comprises units with shared or no facilities. Equipment is for exclusive use if it is used only by the occupants of one unit.

Condition.--The enumerator determined the condition of the housing unit by observation, on the basis of specified criteria related to the extent of degree of visible defects. Although detailed oral and written instructions and visual aids were provided, the application of the criteria involved some judgment on the part of the individual enumerator.

Sound housing is defined as that which has no defects, or only slight defects which are normally corrected during the course of regular maintenance. Deteriorating housing needs more repair than would be provided in the course of regular maintenance. Such housing has one or more defects of an intermediate nature that must be corrected if the unit is to continue to provide safe and adequate shelter.

Dilapidated housing does not provide safe and adequate shelter and in its present condition endangers the health, safety, or well-being of the occupants. Such housing has one or more critical defects, or has

a combination of intermediate defects in sufficient number or extent to require considerable repair or rebuilding, or is of inadequate original construction. Critical defects result from continued neglect or lack of repair, or indicate serious damage to the structure.

Plumbing facilities.--The category "with all plumbing facilities" consists of units which have piped hot and cold water inside the structure, and flush toilet and bathtub (or shower) inside the structure for the exclusive use of the occupants of the unit. Units "lacking only hot water" have all the facilities except piped hot water. Units "lacking other plumbing facilities" may (or may not) have hot water but lack one or more of the other specified facilities. Also included in this category are units having no piped water inside the structure and units whose occupants share toilet or bathing facilities with the occupants of another housing unit.

Exclusive or shared use.--Facilities are "for exclusive use" if they are used only by the occupants of the one housing unit, including lodgers or other unrelated persons living in the housing unit.

Toilet and bathing facilities.--A housing unit has a flush toilet if the facility is inside the structure and available to the occupants of the unit. A housing unit has a bathtub or shower if either facility supplied with piped water (not necessarily hot water) is inside the structure and available to the occupants of the unit.

Water supply.--A housing unit has "piped water" if there is running water inside the structure, and it is available to the occupants of the unit. A unit has hot piped water even though the hot water is not supplied continuously; for example, it may be supplied only at certain times of day, week, or year.

Value.--Value is the respondent's estimate of how much the property would sell for on the current market (April 1960). Value data are restricted to owner-occupied units having only one housing unit in the property and no business. Units in multiunit structures and trailers were excluded from the tabulations, and in rural territory, units on farms and all units on places of 10 acres or more (whether farm or nonfarm) also were excluded.

Gross rent.--Gross rent is based on the information reported for contract rent and the cost of utilities and fuel. Contract rent is the monthly rent agreed upon regardless of any furnishings, utilities, or services that may be included. The computed rent termed "gross rent" is the contract rent plus the average monthly cost of utilities (water, electricity, gas) and fuels such as wood, coal, and oil if these items are paid for by the renter. Thus, gross rent eliminates differentials which result from varying practices with respect to the inclusion of utilities and fuel as part of the rental payment. Rent data exclude rents for units in rural-farm territory.

COLLECTION AND PROCESSING OF DATA

COLLECTION OF DATA

Several enumeration forms were used to collect the information for the 1960 Census of Population. A few days before the census date, the Post Office Department delivered an Advance Census Report (ACR) to households on postal delivery routes. This form contained questions which were to be answered for every person and every housing unit. Household members were requested to fill the ACR and have it ready for the enumerator. The census enumerator recorded this information on a form specially designed for electronic data processing by FOSDIC (Film Optical Sensing Device for Input to Computer). The information was either transcribed from the ACR to the complete-count FOSDIC schedule or entered on this schedule during direct interview.

In the densely populated areas, the enumerator left a Household Questionnaire to be completed by each household (or person) in the sample and mailed to the local census office. The population and housing information was transcribed from the Household Questionnaire to a sample FOSDIC schedule. When the Household Questionnaire was not returned or was returned without having been completed, the enumerator collected the missing information by personal visit or by telephone and entered it directly on the sample FOSDIC schedule. In the remaining areas, when the enumerator picked up the ACR, he obtained all the information by direct interview and recorded it directly on the sample FOSDIC schedule.

Soon after the enumerator started work, his schedules were examined in a formal field review. This operation was designed to assure at an early stage of the work that the enumerator was performing his duties properly and had corrected any errors he had made.

More detailed descriptions of the 1960 Census procedures in the collection and processing of the data are given in reports entitled United States Censuses of Population and Housing, 1960: Principal Data Collection Forms and Procedures, 1961; and Processing the Data, 1962, U.S. Government Printing Office, Washington, D.C., 20402.

MANUAL EDITING AND CODING

After the FOSDIC forms had been checked for completeness in the field, they were sent to a central processing office for manual editing and coding and for microfilming. Except where some special problems arose, there was no manual coding of the FOSDIC forms for complete-count data. On the sample forms, the manual operation was limited to those items where coding required the reading of written entries and therefore could not be done effectively by machine. The coding clerks converted the written entries to codes by marking the appropriate circles on the FOSDIC schedules and at the same time were able to correct obviously wrong entries and sometimes supply missing information.

ELECTRONIC PROCESSING

After the enumerators and coders recorded the information by marking the appropriate circles, the schedules were microfilmed. The information on the microfilm was then read by FOSDIC, which converted the markings to signals on magnetic tape. The tape, in turn, was processed in an electronic computer, which was used extensively to edit and tabulate the data and to produce the publication tables.

EDITING

For a majority of items, nonresponses and inconsistencies were eliminated by using the computer to assign entries and correct inconsistencies. In general, few assignments or corrections were required, although the amount varied by subject and by enumerator.

The assignment of an acceptable entry by machine was based on related information reported for the person or on information reported for a similar person in the immediate neighborhood. For example, in the assignment of age in the complete-count tabulations, the computer stored reported ages of persons by sex, color or race, household relationship, and marital status; each stored age was retained in the computer only until a succeeding person having the same characteristics and having age reported was processed through the computer; this stored age was assigned to the next person whose age was unknown and who otherwise had the same characteristics. This procedure insured that the distribution of ages assigned by the computer for persons of a given set of characteristics would correspond closely to the reported age distribution of such persons as obtained in the current census.

The extent of the allocations for nonresponse or for inconsistency is shown for the United States and for States, places of 10,000 inhabitants or more, and other areas in appendix tables in chapters B, C, and D of 1960 Census of Population, Volume I, Characteristics of the Population, and in the tables in the appendix of the present report.

Specific tolerances were established for the number of computer allocations acceptable for a given area. If the number was beyond tolerance, the data were rejected and the original schedules were reexamined to determine the source of the error. Correction and reprocessing were undertaken as necessary and feasible.

ACCURACY OF THE DATA

Human and mechanical errors occur in any mass statistical operation such as a decennial census. Such errors include failure to obtain required information from respondents, obtaining inconsistent information, recording information in the wrong place or incorrectly, or otherwise producing inconsistencies between entries on interrelated items on the field documents. Sampling biases occur because some of the enumerators fail to follow the sampling instructions. Clerical

coding and editing errors occur, as well as errors in the electronic processing operation.

Careful efforts are made in every census to keep the errors in each step at an acceptably low level. Review of the enumerator's work, verification of manual coding and editing, checking of tabulated figures, and ratio estimation of sample data to control totals from the complete count reduce the effects of the errors in the census data.

A few of the tables in the present report incorporate manual adjustments of data to offset the effect of errors which were discovered after the data had been tabulated. Thus, tables 6 and 7 include estimates of data for women residing in three small urbanized areas. The women in these areas represent about 2 percent of all women residing in urbanized areas of less than 250,000 persons.

An editing procedure used during the processing of the 1960 Census schedules changed the records for most of the persons with implied marriages before age 14 to a marriage date which would imply first marriage at age 14 or later. In tables 21 and 22, however, data for the remaining women whose records implied marriages before age 14 were tallied in inapplicable parts of the table. Accordingly, changes in these tables were made to transfer such women and their children to parts of the table for women of duration intervals corresponding to age 14 at marriage. Some of the changes were exact, and some were based on estimates that were only approximately correct.

Very minor differences between figures from the same sample within this report or between 25-percent sample data in this report and corresponding data in chapters C and D of Volume I, Characteristics of the Population, may have resulted from imperfections in the electronic equipment. Other small differences within the same sample reflect the use of different weighting procedures; for example, the data in tables 48 and 49 were based in part on a family tape file in which the family head's sample inflation weight was used instead of the woman's sample inflation weight. No attempt has been made to reconcile these minor discrepancies.

Some innovations in the 1960 Censuses reduced errors in processing and others produced a more consistent quality of editing. The elimination of the card-punching operation removed one important source of error. The extensive use of electronic equipment insured a more uniform and more flexible edit than could have been accomplished manually or by less intricate mechanical equipment. It is believed that the use of electronic equipment in the 1960 Censuses has improved the quality of the editing compared with that of earlier censuses but, at the same time, it has introduced an element of difference in the statistics.

A group of reports designated Evaluation and Research Program Series will deal with the methods, results, and interpretation of a group of evaluation and research studies of the 1960 Censuses of Population and Housing. A report entitled The Post-Enumeration Survey: 1950, Technical Paper No. 4, presents evaluative material on the 1950 Census.

SAMPLE DESIGN AND SAMPLING VARIABILITY

SAMPLE DESIGN

For persons in housing units at the time of the 1960 Census, the sampling unit was the housing unit and all its occupants; for persons in group quarters, it was the person. On the first visit to an address, the enumerator assigned a sample key letter (A, B, C, or D) to each housing unit sequentially in the order in which he first visited the units, whether or not he completed an interview. Each enumerator was given a random key letter to start his assignment, and the order of canvassing was indicated in advance, although these instructions allowed some latitude in the order of visiting addresses. Each housing unit to which the key letter "A" was assigned was designated as a sample unit, and all persons enumerated in the unit were included in the sample. In every group quarters, the sample consisted of every fourth person in the order listed. Most of the 1960 statistics in this report are based on a subsample of one-fifth of the original 25-percent sample schedules; some, however, are based on the full 25-percent sample¹ (tables 10, 11, 46, 50)

and a few on a 4-percent sample² (tables 43 and 44). The 5-percent subsample was selected on the computer, using a stratified systematic sample design. The strata were made up as follows: for persons in regular housing units there were 36 strata, i.e., 9 household size groups by 2 tenure groups by 2 color groups; for persons in group quarters, there were 2 strata, i.e., the 2 color groups.

Although the sampling procedure did not automatically insure an exact 5-percent sample of persons, the sample design was unbiased if carried through according to instructions. Generally, for large areas, the deviation from the estimated sample size was found to be quite small. Biases may have arisen, however, when the enumerator failed to follow his listing and sampling instructions exactly.

Table B compares rates of children ever born per 1,000 women, based on the several sample sizes used in this report. Differences in this table reflect primarily sampling error. This is relatively small and should have little influence on the interpretation of the data.

Table B.--COMPARISON OF NUMBERS OF WOMEN EVER MARRIED AND RATES OF CHILDREN EVER BORN PER 1,000 WOMEN EVER MARRIED FROM THREE SAMPLE SIZES, BY AGE AND COLOR, FOR THE UNITED STATES: 1960

Age of woman	White						Nonwhite					
	Women ever married			Children ever born per 1,000 women ever married			Women ever married			Children ever born per 1,000 women ever married		
	25-percent sample	5-percent sample	4-percent sample	25-percent sample	5-percent sample	4-percent sample	25-percent sample	5-percent sample	4-percent sample	25-percent sample	5-percent sample	4-percent sample
15 to 19 years.....	927,390	527,745	929,939	729	725	727	132,467	132,762	133,700	1,234	1,247	1,264
20 to 24 years.....	3,501,515	3,490,391	3,494,524	1,370	1,370	1,367	450,800	444,037	444,343	1,992	1,999	1,996
25 to 29 years.....	4,367,223	4,363,765	4,372,854	2,171	2,171	2,171	587,767	592,345	593,412	2,766	2,771	2,762
30 to 34 years.....	5,027,100	5,023,379	5,025,735	2,559	2,559	2,564	661,407	657,809	657,347	3,138	3,155	3,159
35 to 39 years.....	5,372,979	5,396,254	5,402,871	2,629	2,625	2,624	656,033	652,506	654,318	3,147	3,138	3,143
40 to 44 years.....	4,978,718	4,959,398	4,954,399	2,516	2,515	2,514	579,845	578,256	579,857	2,977	2,984	2,973
45 to 49 years.....	4,658,767	4,666,602	4,675,741	2,354	2,354	2,353	532,228	533,824	532,588	2,824	2,818	2,818
50 years and over...	18,431,259	18,385,438	18,380,425	2,751	2,753	2,754	1,760,450	1,767,948	1,769,094	3,188	3,197	3,195
50 to 54 years...	4,115,625	4,106,661	...	2,313	2,317	...	440,823	445,945	...	2,747	2,742	...
55 to 59 years...	3,652,921	3,646,375	...	2,451	2,450	...	395,297	397,087	...	2,889	2,904	...
60 to 64 years...	3,148,811	3,139,670	...	2,679	2,676	...	293,398	292,131	...	3,093	3,109	...
65 and over.....	7,513,902	7,492,732	...	3,166	3,172	...	630,932	632,785	...	3,726	3,741	...

RATIO ESTIMATION

The statistics based on the 5-percent sample of the 1960 Census returns are estimates that have been developed through the use of a ratio estimation procedure. This procedure was carried out for each of the following 44 groups of persons in each of the sample weighting areas.³ The sample weighting areas were defined as those areas within a State consist-

ing of central cities of urbanized areas, the remaining portion of urbanized areas not in central cities, urban places not in urbanized areas, or rural areas.

³ Estimates of characteristics from the sample for a given area are produced using the formula:

$$x' = \sum_{i=1}^{44} \frac{x_i}{Y_i} Y_i$$

where x' is the estimate of the characteristic for the area obtained through the use of the ratio estimation procedure, x_i is the count of sample persons with the characteristic for the area in one (i) of the 44 groups, Y_i is the count of all sample persons for the area in the same one of the 44 groups, and Y_i is the count of persons in the complete count for the area in the same one of the 44 groups.

¹ For a detailed description of the sample design and the ratio estimation procedure for the 25-percent sample, see 1960 Census of Population, Volume I, Characteristics of the Population, Part 1, United States Summary.

² The 4-percent sample represents households in the 20-percent housing sample that fell into the 5-percent population sample. Statistics shown for this sample were produced by inflating tallies from the 5-percent population sample by a uniform factor of 1.25.

Group	Sex, color, and age	Relationship and tenure
Male white:		
1	Under 5	
2	5 to 13	
3	14 to 24	Head of owner household
4	14 to 24	Head of renter household
5	14 to 24	Not head of household
6-8	25 to 44	Same groups as age group 14 to 24
9-11	45 and over	Same groups as age group 14 to 24
Male nonwhite:		
12-22	Same groups as male white	
Female white:		
23-33	Same groups as male white	
Female nonwhite:		
34-44	Same groups as male white	

For each of the 44 groups, the ratio of the complete count to the sample count of the population in the group was determined. Each specific sample person in the group was assigned an integral weight so that the sum of the weights would equal the complete count for the group. For example, if the ratio for a group was 20.1, one-tenth of the persons (selected at random) within the group were assigned a weight of 21, and the remaining nine-tenths a weight of 20. The use of such a combination of integral weights rather than a single fractional weight was adopted to avoid the complications involved in rounding in the final tables. In order to increase the reliability, where there were fewer than 275 persons in the complete count in a group, or where the resulting weight was over 80, groups were combined in a specific order to satisfy both of these two conditions.

These ratio estimates reduce the component of sampling error arising from the variation in the size of household and achieve some of the gains of stratification in the selection of the sample, with the strata being the groups for which separate ratio estimates are computed. The net effect is a reduction in the sampling error and bias of most statistics below what would be obtained by weighting the results of the 5-percent sample by a uniform factor of twenty. The reduction in sampling error will be trivial for some items and substantial for others. A by-product of this estimation procedure, in general, is that estimates for this sample are generally consistent with the complete count with respect to the total population and for the subdivisions used as groups in the estimation procedure. A more complete discussion of the technical aspects of these ratio estimates will be presented in another report.

SAMPLING VARIABILITY

The figures from the sample tabulations are subject to sampling variability, which can be estimated roughly from the standard errors shown in tables C, D, and E below. These tables⁴ do not reflect the effect

⁴ The estimates of sampling variability are based on calculations from a preliminary sample of the 1960 Census results. Further estimates are being calculated and will be available at a later date.

of response variance, processing variance, or bias arising in the collection, processing and estimation steps. Estimates of the magnitude of some of these factors in the total error are being evaluated and will be published at a later date. The chances are about two out of three that the difference due to sampling variability between an estimate and the figure that would have been obtained from a complete count of the population is less than the standard error. The chances are about 19 out of 20 that the difference is less than twice the standard error and about 99 out of 100 that it is less than 2½ times the standard error. The amount by which the estimated standard error must be multiplied to obtain other odds deemed more appropriate can be found in most statistical textbooks.

Table C shows rough standard errors of estimated numbers up to 50,000. The relative sampling errors of larger estimated numbers are somewhat smaller than for 50,000. For estimated numbers above 50,000, however, the nonsampling errors, e.g., response errors and processing errors, may have an increasingly important

Table C.--ROUGH APPROXIMATION TO STANDARD ERROR OF ESTIMATED NUMBER

(Range of 2 chances out of 3)

Estimated number	Standard error		
	25-percent sample	5-percent sample	4-percent sample
50.....	15	30	30
100.....	20	40	40
250.....	30	60	70
500.....	40	90	100
1,000.....	50	120	130
2,500.....	80	200	220
5,000.....	110	280	310
10,000.....	160	390	430
15,000.....	190	480	530
25,000.....	250	620	680
50,000.....	350	880	970

Table D.--ROUGH APPROXIMATION TO STANDARD ERROR OF ESTIMATED PERCENTAGE

(Range of 2 chances out of 3)

Sample size and estimated percentage	Base of percentage					
	500	1,000	2,500	10,000	25,000	100,000
25-PERCENT SAMPLE						
2 or 98.....	1.3	0.9	0.5	0.3	0.1	0.1
5 or 95.....	2.0	1.4	0.9	0.4	0.2	0.1
10 or 90.....	2.8	2.0	1.2	0.6	0.3	0.2
25 or 75.....	3.8	2.7	1.5	0.7	0.4	0.2
50.....	4.4	3.1	1.6	0.8	0.5	0.3
5-PERCENT SAMPLE						
2 or 98.....	...	2.3	1.3	0.8	0.3	0.3
5 or 95.....	...	4.0	2.3	1.0	0.5	0.3
10 or 90.....	...	5.0	3.0	1.5	0.8	0.5
25 or 75.....	...	6.8	3.8	1.8	1.0	0.5
50.....	...	7.8	4.0	2.0	1.3	0.8
4-PERCENT SAMPLE						
2 or 98.....	...	2.5	1.4	0.9	0.3	0.3
5 or 95.....	...	4.4	2.5	1.1	0.6	0.3
10 or 90.....	...	5.5	3.3	1.6	0.9	0.6
25 or 75.....	...	7.5	4.2	2.0	1.1	0.6
50.....	...	8.6	4.4	2.2	1.4	0.9

effect on the total error. Table D shows rough standard errors of data in the form of percentages. Linear interpolation in tables C and D will provide approximate results that are satisfactory for most purposes.

The sampling variability of the number of children ever born per 1,000 women depends on the variability of the distribution on which the rate is based, the size of the sample, the sample design (for example, the use of households as the sampling unit) and the use of ratio estimates. Estimates of standard errors for rates of children ever born per 1,000 ever-married women are presented in table E. The estimates are approximations that involved a number of simplifying assumptions such as the use of regression equations. If a closer approximation to the standard error of the rate of children ever born is needed, it can be calculated using the following equation:

$$\sigma_{1,000\bar{x}} = \frac{R}{N} \sqrt{\sum n^2 X_n - \frac{(\sum nX_n)^2}{N}}$$

Where

$\sigma_{1,000\bar{x}}$ is the standard error of a fertility rate per 1,000 women ($1,000\bar{x}$).

R is a constant which depends on the size of the sample. Thus, R=1,800 for 25-percent sample data, 4,400 for 5-percent sample data, and 4,900 for 4-percent sample data.

n is specific number of children ever born ($n=0, 1, 2, 3, \text{etc.}$)

X_n is number of women in inflated sample who have borne n children.

N is total number of women = $\sum_{n=0}^{n=12+} X_n$

Table E.--STANDARD ERROR OF NUMBER OF CHILDREN EVER BORN PER 1,000 WOMEN EVER MARRIED
(Range of 2 chances out of 3)

Sample size and number of women ever married	Number of children ever born per 1,000 women ever married								
	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500
25-PERCENT SAMPLE									
500.....	40	61	80	98	114	132	147	164	180
1,000.....	35	55	68	86	108	120	136	152	171
2,500.....	21	35	47	59	71	82	91	101	110
10,000.....	10	17	24	29	35	40	46	50	55
25,000.....	7	12	16	19	23	26	28	32	34
100,000.....	3	6	8	9	11	12	14	16	17
500,000.....	2	2	3	4	5	6	6	7	8
1,000,000.....	1	1	2	2	3	3	4	4	5
5-PERCENT SAMPLE									
1,000.....	90	141	174	220	276	307	348	389	438
2,500.....	54	90	120	151	182	210	233	259	282
10,000.....	26	44	61	74	90	102	118	128	141
25,000.....	18	31	41	49	59	67	72	82	87
100,000.....	8	15	20	23	28	31	36	41	44
500,000.....	5	5	8	10	13	15	15	18	20
1,000,000.....	3	3	5	5	8	8	10	10	13
4-PERCENT SAMPLE									
1,000.....	101	158	195	246	309	344	390	436	491
2,500.....	60	101	134	169	204	235	261	290	316
10,000.....	29	49	68	83	101	114	132	143	158
25,000.....	20	35	46	55	66	75	81	92	97
100,000.....	9	17	22	26	31	35	40	46	49
500,000.....	6	6	9	11	15	17	17	20	22
1,000,000.....	3	3	6	6	9	9	11	11	15

The use of the equation will provide a closer approximation to the standard error of a rate of children ever born than the use of table E. Table E was prepared using this formula and also a regression function relating the distribution of women with 0, 1, 2, etc., children to the total number of children ever born. In any specific case, this regression function is only an approximation.

Illustration: Table 31 shows a rate of 2,892 children ever born per 1,000 women for 48,109 white women 25 to 29 years old whose husbands are employed as farm laborers and foremen. Table 31 is based on a 5-percent sample, and table E shows that for an estimate of 2,892 children ever born per 1,000 women ever

married, based on the 5-percent sample for 48,109 women, a rough approximation to the standard error is about 54. This means that the chances are about 2 out of 3 that a complete census result would not differ by more than 54 from the estimated rate of 2,892 children per 1,000 women. It also follows that there is only about 1 chance in 100 that a complete count would differ by as much as 135, that is, by about $2\frac{1}{2}$ times the number estimated from table E.

For a further discussion of the sampling variability and of the method for obtaining standard errors of differences between two estimates, see Volume I, Characteristics of the Population.