

APPENDIX B

DEFINITIONS AND EXPLANATIONS

Population coverage. The figures shown are for the civilian population excluding the relatively small number of inmates of institutions.

Metropolitan-nonmetropolitan residence. The population residing in standard metropolitan statistical areas (SMSA's) constitutes the metropolitan population. 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 metropolitan population in this report is based on SMSA's as defined in the 1970 census and does not include any subsequent additions or changes.

The population inside SMSA's is further classified as "in central cities" and "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 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.

Geographic regions. The four major regions of the United States, for which data are presented in this report, represent groups of States, as follows:

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

North Central: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

School enrollment. The school enrollment statistics from the current surveys are based on replies to the enumerator's inquiry as to whether the person was enrolled in school. Enumerators were instructed to count as enrolled anyone who had been enrolled at any time during the current term or school year in any type of graded public, parochial, or other private school in the regular school system. Such schools include nursery schools, kindergartens, elementary schools, high schools, colleges, universities, and professional schools. Attendance may be on either a full-time or part-time basis and during the day or night. Thus, regular schooling is that which may advance a person toward an elementary or high school diploma, or a college, university, or professional school degree. Children enrolled in nursery schools and kindergarten are included in the enrollment figures for "regular" schools, and are also shown separately.

"Special" schools are those which are not in the regular school system, such as trade schools or business colleges. Persons attending "special" schools are not included in the enrollment figures.

Persons enrolled in classes which do not require physical presence in school, such as correspondence courses or other courses of independent study, and in training courses given directly on the job, are also excluded from the count of those enrolled in school, unless such courses are being counted for credit at a "regular" school.

College enrollment. The college enrollment statistics are based on replies to the enumerator's inquiry as to whether the person was attending or enrolled in college. Enumerators were instructed to count as enrolled anyone who had been enrolled at any time during the current term or school year, except those who have left for the remainder of the term. Thus, regular college enrollment includes those persons attending a four-year or two-year college, university or professional school (such as medical or law school), in courses that may advance the student toward a recognized college or university degree (e.g. BA or MA). Attendance may be either full time or part time, during the day or night.

Two-year and four-year college. Students enrolled in the first 3 years of college were asked to report whether the college in which they were enrolled was a two-year college (junior or community college). Those who replied "yes" were classified as enrolled in a two-year college. Those who replied "no" were classified as enrolled in a four-year college.

School enrollment in year preceding current survey. An inquiry on enrollment in regular school or college in October of the preceding year was asked in the 1974 survey concerning persons 14 to 24 years old who were not currently attending regular school or who were enrolled in college.

Level of school. The statistics on level of school indicate the number of persons enrolled at each of five levels: Nursery, kindergarten, elementary school (first to eighth grades), high school (ninth to twelfth grades), and college or professional school. The last group includes graduate students in colleges or universities. Persons enrolled in junior high school through the eighth grade are classified as in elementary school and the others as in high school.

Nursery school. A nursery school is defined as a group or class that is organized to provide educational experiences for children during the year or years preceding kindergarten. It includes instruction as an important and integral phase of its program of child care. Private homes in which essentially custodial care is provided are not considered nursery schools. Children attending nursery school are classified as attending during either part of the day or the full day. Part-day attendance refers to those who attend either in the morning or in the afternoon, but not both. Full-day attendance refers to those who attend both in the morning and afternoon.

"Head Start." Children enrolled in "Head Start" programs or similar programs sponsored by local agencies to provide preschool education to young children are counted under "Nursery" or "Kindergarten" as appropriate.

Public or private school. In this report, a public school is defined as any educational institution operated by publicly elected or appointed school officials and supported by public funds. Private schools include educational institutions established and operated by religious bodies, as well as those which are under other private control. In cases where enrollment was in a school or college which was both publicly and privately controlled or supported, enrollment was counted according to whether it was primarily public or private.

Full-time and part-time attendance. College students were classified, in this report, according to whether they were attending school on a full-time or part-time basis. A student was regarded as attending college full time if he was taking 12 or more hours of classes during the average school week, and part time if he was taking less than 12 hours of classes during the average school week.

Modal grade. Enrolled persons are classified according to their relative progress in school, that is, according to whether the grade or year in which they were enrolled was below, at, or above the modal (or typical) grade for persons of their age at the time of the survey. The modal grade, then, is the year of school in which the largest proportion of students of a given age is enrolled.

Age. The age classification is based on the age of the person as of October 1, 1974.

Race. The population is divided into three groups on the basis of race: White, Black, and "other races." The last category includes Indians, Japanese, Chinese, and any other race except White and Black.

Spanish origin. Information on origin or descent was obtained by asking "What is (this person's) origin or descent?" Responses generally refer to a person's perceived national or ethnic lineage and do not necessarily indicate the country of birth of himself or his parents. The category Spanish origin includes persons of Mexican, Puerto Rican, Central or South American, and other Spanish origin.

Marital status. The marital status category shown in this report, "married, spouse present," includes persons who are currently married and living with their spouse.

Family. The term "family," as used here, refers to a group of two persons or more related by blood, marriage, or adoption and residing together; all such persons are considered as members of one family.

Head of family. One person in each family residing together was designated as the head. The head of a family is usually the person regarded as the head by members of the family. Women are not classified as heads if their husbands are resident members of the family at the time of the survey.

Other family members. For the purpose of this report, an other family member is a relative of the household head, excluding the head's wife or any other relative who is married with a spouse present. Such persons are generally sons and daughters of the household head. Household members who are living away from home while attending college are also counted as other family members, if they are not married with a spouse present.

Years of school completed. Data on years of school completed in this report were derived from the combination of answers to two questions: (a) "What is the highest grade of school he has ever attended?" and (b) "Did he finish this grade?"

The questions on educational attainment apply only to progress in "regular" schools. Such schools include graded public, private, and parochial elementary and high schools (both junior and senior high), colleges, universities, and professional schools, whether day schools or night schools. Thus, regular schooling is that which may advance

a person toward an elementary school certificate, high school diploma, or a college, university, or professional school degree. Schooling in other than regular schools was counted only if the credits obtained were regarded as transferable to a school in the regular school system.

Family income. Income as defined in this report represents the combined total money income of the family before deductions for personal taxes, Social Security, bonds, etc. It is the algebraic sum of money wages and salaries, net income from self-employment, and income other than earnings received by all family members during the 12 months prior to the surveys. It should be noted that although the family income statistics refer to receipts during the previous 12 months, the characteristics of the person, such as age, marital status, etc., and the composition of families refer to the date of the survey.

The income tables include in the lowest income group (under \$5,000) those who were classified as having no income in the previous 12 months and those reporting a loss in net income from farm and nonfarm self-employment or in rental income.

The income tables in this report include a separate category for families for which no income information was

obtained. In most of the other Current Population Survey Reports showing income data, the missing income data have been allocated.

The money income level of families shown in this report may be somewhat understated. Income data from the October control card are based on the respondent's estimate of total family money income for the preceding 12 months coded in broad, fixed income intervals. Income data collected in the March supplement to the Current Population Survey are based on responses to 8 direct questions asked of all persons 14 years old and over identifying 14 different sources of income and cover the preceding calendar year. (See table B-1).

Previous research has shown that the use of broad income intervals to record money income tends to reduce the rate of nonreporting while increasing the likelihood that the amounts reported will be significantly understated as compared with results from more detailed questions.

Rounding of estimates. Individual figures are rounded to the nearest thousand without being adjusted to group totals, which are independently rounded. With few exceptions, percentages are based on the rounded absolute numbers.

Table B-1. October CPS Control Card Family Income and March CPS Supplement Family Income for 1967 Through 1975

Year	Median family income, October control card	Percent change	Median family income, March supplement	Percent change	October-March ratio
1967.....	\$6,575	(X)	\$7,974	(X)	0.82
1968.....	7,060	7.4	8,632	8.3	0.82
1969.....	7,692	9.0	9,433	9.3	0.82
1970.....	8,093	5.2	9,867	1.6	0.82
1971.....	8,479	4.8	10,285	4.2	0.82
1972.....	9,115	7.5	11,116	8.1	0.82
1973.....	10,156	11.4	12,051	8.4	0.84
1974.....	10,650	4.9	12,836	6.5	0.83
1974 ^F	10,650	(X)	12,902	(X)	0.83
1975.....	11,031	3.6	13,719	6.3	0.80

^F March 1974 figures revised.

X Not applicable.

SOURCE AND RELIABILITY OF THE ESTIMATES

Source of data. Most of the estimates contained in these tables are based on data obtained from a supplement to the Current Population Survey (CPS) in October 1975. Some of

the data in the tables are based on data obtained from similar supplements to CPS in October of each of the years 1947, 1950, 1955, 1960 and 1965 through 1974. Also, the text of this report refers to published data from supplements to CPS in March of years in the early 1960's.

Current population survey (CPS). The following table provides a description of some aspects of the Current Population Survey design.

The CPS deals mainly with labor force data. Questions relating to labor force participation are asked about each

member 14 years old or older in the household. In the recent October supplements questions concerning educational characteristics, such as school enrollment, have been asked to acquire information about all levels of education.

Description of the Current Population Survey

Time period	Number of sample areas ¹	Households eligible		Households visited, not interviewed ²
		Interviewed	Not interviewed	
August 1972 to present.....	461	45,000	2,000	8,000
August 1971 to July 1972.....	449	45,000	2,000	8,000
January 1967 to July 1971.....	449	48,000	2,000	8,500
March 1963 to December 1966.....	357	33,500	1,500	6,000
January 1960 to February 1963.....	333	33,500	1,500	6,000
May 1956 to December 1959.....	330	33,500	1,500	6,000
February 1954 to April 1956.....	230	21,000	500-1,000	3,000-3,500
1947 to January 1954.....	68	21,000	500-1,000	3,000-3,500

¹These areas were chosen to provide coverage in each State and the District of Columbia.

²These are households which were visited, but were found to be vacant or otherwise not to be interviewed.

The estimation procedure used for both the CPS data and supplemental data involves the inflation of the weighted sample results to independent estimates of the civilian non-institutional population of the United States by age, race, and sex. These independent estimates were based on statistics from the 1970 Census of Population; statistics on births, deaths, immigration, and emigration; and statistics on the strength of the Armed Forces.

Reliability of the estimates. Since the estimates in these tables were 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 schedules, instructions and enumerators. There are two types of errors possible in an estimate based on a sample survey--sampling and nonsampling. For estimates in this report, indications of the magnitude of sampling error are provided, but the extent of the nonsampling error is unknown. Consequently, particular care should be exercised in the interpretation of figures based on a relatively small number of cases or on small differences between estimates.

Nonsampling variability. As in any survey work, the results are subject to errors of response and nonreporting in addition to sampling variability. Nonsampling errors can be attributed to many sources, e.g., inability to obtain information about all cases in the sample, definitional difficulties, differences in the interpretation of questions, inability or unwillingness to provide correct information on the part of respondents, inability to recall information, mistakes made in collection such as in recording or coding the data, mistakes made in processing the data, mistakes

made in estimating values for missing data, and failure to represent all units with the sample (undercoverage). The approximate magnitude of two sources of undercoverage in CPS is known and is described next.

Approximately 600,000 conventional new construction units were issued building permits prior to the 1970 census but building was not completed by the time of the census (i.e., April 1970); these units have no representation in the CPS sample. Conventional new construction, for which building permits were issued after the census, is represented. In addition to undercoverage of conventional new construction, CPS misses approximately one-fourth of all new mobile homes (i.e., 400,000 units). These are missed because there is no systematic sampling procedure to provide representation of mobile homes constructed since the 1970 census.

Sampling variability. The standard errors given in the following tables are primarily measures of sampling variability, that is, of the variations that occurred by chance because a sample rather than the whole of the population was surveyed. As calculated, the standard error also partially measures the effect of certain response and enumeration errors, but it does not measure any systematic biases in the data. The chances are about 68 out of 100 that an estimate from the survey differs from a complete census figure by less than the standard error. The chances are about 90 out of 100 that this difference would be less than 1.6 times the standard error, and about 95 out of 100 that the difference would be less than twice the standard error.

All the statements of comparison appearing in the text are significant at a 1.6 standard error level or better, and most are significant at a level of more than 2.0 standard errors. This means that for most differences cited in the text, the estimated difference is greater than twice the standard error of the difference. Statements of comparison qualified in some way (e.g., by use of the phrase, "some evidence") have a level of significance between 1.6 and 2.0 standard errors.

Note when using small estimates. Percent distributions are shown in the report only when the base of the percentage is 75,000 or greater. Because of the large standard errors involved, there is little chance that percentages would reveal useful information when computed on a smaller base. Estimated totals are shown, however, even though the relative standard errors of these totals are larger than those for corresponding percentages. These smaller estimates are provided primarily to permit such combinations of the categories as serve each user's needs.

Standard error tables and their use. Instead of providing individual standard error tables for each characteristic of interest, generalized standard error tables for estimated numbers and estimated percentages, by race, are provided to conserve space. In all the standard error tables, standard errors for intermediate values not shown may be approximated by interpolation. In addition, where two or more items have nearly equal standard errors, such as total population and White population, one table is used to represent them. As a result, the tables of standard errors (along with the factors) provide an indication of the order of magnitude of the standard errors rather than the precise standard error for any specific item.

The figures presented in tables B-2 through B-7 provide approximations to standard errors of various estimates shown in this report. Estimated standard errors cannot be obtained from tables B-2 through B-4, however, without the use of table B-9. The numbers in table B-9, or combinations of them, correspond to the Total-Persons-in-Age-Group column headings in tables B-2 through B-7.

Table B-2. Standard Errors for Estimated Numbers of Persons Enrolled in School

Total or White Population

(68 chances out of 100. Numbers in thousands)

Estimated number of persons	Total persons in age group									
	100	250	500	1,000	2,500	5,000	10,000	25,000	50,000	100,000
10.....	4.4	4.6	4.6	4.6	4.6	4.7	4.7	4.7	4.7	4.7
20.....	5.9	6.3	6.5	6.5	6.6	6.6	6.6	6.6	6.6	6.6
30.....	6.8	7.6	7.8	7.9	8.0	8.0	8.1	8.1	8.1	8.1
40.....	7.2	8.5	8.9	9.1	9.2	9.3	9.3	9.3	9.3	9.3
50.....	7.4	9.3	9.9	10.2	10.3	10.4	10.4	10.4	10.4	10.4
75.....	6.4	10.7	11.8	12.3	12.6	12.7	12.7	12.7	12.7	12.8
100.....	-	11.4	13.2	14.0	14.4	14.6	14.7	14.7	14.7	14.7
200.....	-	9.3	16.1	18.6	20.0	20.4	20.6	20.7	20.8	20.8
300.....	-	-	16.1	21.3	23.9	24.7	25.1	25.4	25.4	25.5
400.....	-	-	13.2	22.8	27.0	28.3	28.9	29.2	29.3	29.4
500.....	-	-	-	23.3	29.5	31.2	32.1	32.6	32.8	32.9
750.....	-	-	-	20.2	33.8	37.2	38.8	39.7	40.0	40.2
1,000.....	-	-	-	-	36.1	41.7	44.2	45.6	46.1	46.3
2,000.....	-	-	-	-	29.5	51.0	58.9	63.2	64.5	65.2
3,000.....	-	-	-	-	-	51.0	67.5	75.7	78.2	79.5
4,000.....	-	-	-	-	-	41.7	72.2	85.4	89.4	91.3
5,000.....	-	-	-	-	-	-	73.7	93.2	98.8	101.5
7,500.....	-	-	-	-	-	-	63.9	106.7	117.6	122.7
10,000.....	-	-	-	-	-	-	-	114.1	131.8	139.7
20,000.....	-	-	-	-	-	-	-	93.2	161.4	186.3
30,000.....	-	-	-	-	-	-	-	-	161.4	213.5
40,000.....	-	-	-	-	-	-	-	-	131.8	228.2
50,000.....	-	-	-	-	-	-	-	-	-	232.9
75,000.....	-	-	-	-	-	-	-	-	-	201.7
100,000.....	-	-	-	-	-	-	-	-	-	-

- Represents zero.

Note: To estimate the standard errors for the period 1956 to 1966, multiply these standard errors by 1.23. For years prior to 1956, multiply by 1.5.

Table B-3. Standard Errors for Estimated Numbers of Persons Enrolled in School

Black and Other Races

(68 chances out of 100. Numbers in thousands)

Estimated number of persons	Total persons in age group						
	100	250	500	1,000	2,500	5,000	10,000
10.....	4.8	5.0	5.0	5.0	5.1	5.1	5.1
20.....	6.4	6.9	7.0	7.1	7.1	7.1	7.2
30.....	7.3	8.2	8.5	8.6	8.7	8.7	8.8
40.....	7.8	9.3	9.7	9.9	10.0	10.1	10.1
50.....	8.0	10.1	10.7	11.0	11.2	11.3	11.3
75.....	6.9	11.6	12.8	13.3	13.7	13.8	13.8
100.....	-	12.4	14.3	15.2	15.7	15.8	15.9
200.....	-	10.1	17.5	20.2	21.7	22.2	22.4
300.....	-	-	17.5	23.2	26.0	26.9	27.3
400.....	-	-	14.3	24.8	29.3	30.7	31.4
500.....	-	-	-	25.3	32.0	34.0	34.9
750.....	-	-	-	21.9	36.7	40.4	42.2
1,000.....	-	-	-	-	39.2	45.3	48.0
2,000.....	-	-	-	-	32.0	55.4	64.0
3,000.....	-	-	-	-	-	55.4	73.3
4,000.....	-	-	-	-	-	45.3	78.4
5,000.....	-	-	-	-	-	-	80.0
7,500.....	-	-	-	-	-	-	69.3
10,000.....	-	-	-	-	-	-	-

- Represents zero.

Note: To estimate the standard errors for the period 1956 to 1966, multiply these standard errors by 1.23. For years prior to 1956, multiply by 1.5.

Table B-8 provides factors which must be used to calculate standard errors for each characteristic. These factors must be applied to the generalized standard errors in order to adjust for the combined effect of the sample design and the estimating procedure on the value of the characteristic. For example, to produce approximate standard errors for the marital status of Spanish origin persons, multiply the appropriate figures in tables B-4 or B-7 by the factor 1.4 from table B-8. The determination of the proper factor for a percentage depends upon the subject matter of the numerator of the percentage, not the denominator. For example, if a percent referred to the percentage of males enrolled in college whose families had income of less than \$10,000 per year in October 1975, then the factor 1.2 for income of total persons is used.

Standard errors of estimated numbers. The approximate standard error, σ_x , of an estimated number shown in this report can be obtained by use of the formula $\sigma_x = f\sigma$. (1)

In this formula, f is the appropriate factor from table B-8 and σ is the standard error for total or White persons in table B-2, the standard error for Black and other races persons in table B-3 or the standard error for Spanish origin persons in table B-4.

Standard errors of estimated percentages. The reliability of an estimated percentage, computed by using sample data for both numerator and denominator, depends on both the

size of the percentage and the size of the total upon which this percentage is based. Estimated percentages are relatively more reliable than the corresponding estimates of the numerators of the percentages, particularly if the percentages are 50 percent or more. The approximate standard error, $\sigma_{(x,p)}$, of an estimated percentage can be obtained by use of the formula:

$$\sigma_{(x,p)} = f\sigma. \quad (2)$$

In this formula, f is the appropriate factor from table B-8 and σ is the standard error for total or White persons in table B-5, the standard error for Black and other races in table B-6, or the standard error for Spanish origin persons in table B-7. When the numerator and denominator of the percentage are in different categories, use the table and factor indicated by the numerator.

Illustration of the use of tables of standard errors. Table C of this report shows that in October 1975 there were 590,000 women 25 to 29 years old enrolled in college. The estimated total number of women 25 to 29 years old from table B-9 is 8,577,000. The factor in table B-8 for education, total or White, is 1.0. Using both the 8,577,000 estimated women in the age group and the estimated 590,000 women in the age group in college with table B-2, and formula (1), an approximate standard error of 34,000 = (34,000 x 1.0) is obtained. The chances are 68 out of 100 that the estimate would have been a figure differing from a complete census figure by less than 34,000. The chances are 95 out of 100 that the estimate would have been a figure differing from a complete census figure by less than 68,000 (twice the standard error).

Table B-4. Standard Errors for Estimated Numbers of Persons Enrolled in School

Spanish Origin

(68 chances out of 100. Numbers in thousands)

Estimated number of persons	Total persons in age group						
	100	250	500	1,000	2,500	5,000	10,000
10.....	5.9	6.1	6.1	6.2	6.2	6.2	6.2
20.....	7.8	8.4	8.6	8.7	8.7	8.8	8.8
30.....	9.0	10.1	10.4	10.6	10.7	10.7	10.7
40.....	9.6	11.4	11.9	12.2	12.3	12.4	12.4
50.....	9.8	12.4	13.2	13.5	13.7	13.8	13.8
75.....	8.5	14.2	15.7	16.3	16.7	16.9	16.9
100.....	-	15.2	17.6	18.6	19.2	19.4	19.5
200.....	-	12.4	21.5	24.8	26.6	27.2	27.5
300.....	-	-	21.5	28.4	31.9	33.0	33.5
400.....	-	-	17.6	30.4	36.0	37.6	38.5
500.....	-	-	-	31.0	39.2	41.6	42.8
750.....	-	-	-	26.9	45.0	49.5	51.7
1,000.....	-	-	-	-	39.3	55.5	58.9
2,000.....	-	-	-	-	-	68.0	78.5
3,000.....	-	-	-	-	-	68.0	89.9
4,000.....	-	-	-	-	-	55.5	96.1
5,000.....	-	-	-	-	-	-	98.1
7,500.....	-	-	-	-	-	-	85.0
10,000.....	-	-	-	-	-	-	-

- Represents zero.

Note: To estimate the standard errors for the period 1956 to 1966, multiply these standard errors by 1.23. For years prior to 1956, multiply by 1.5.

Table B-5. Standard Errors of Estimated Percentages

Total or White Population

(68 chances out of 100)

Base of percentage (thousands)	Estimated percentage				
	2 or 98	5 or 95	10 or 90	25 or 75	50
100.....	2.0	3.1	4.3	6.2	7.2
250.....	1.3	2.0	2.8	4.0	4.5
500.....	0.9	1.4	1.9	2.8	3.2
1,000.....	0.6	1.0	1.4	2.0	2.3
2,500.....	0.4	0.6	0.9	1.2	1.4
5,000.....	0.3	0.4	0.6	0.9	1.0
10,000.....	0.2	0.3	0.4	0.6	0.7
25,000.....	0.1	0.2	0.3	0.4	0.5
50,000.....	0.1	0.1	0.2	0.3	0.3
100,000.....	0.1	0.1	0.1	0.2	0.2

Table B-6. Standard Errors of Estimated Percentages

Black and Other Races

(68 chances out of 100)

Base of percentage (thousands)	Estimated percentage				
	2 or 98	5 or 95	10 or 90	25 or 75	50
50.....	3.3	5.2	7.1	10.2	11.8
100.....	2.3	3.6	5.0	7.2	8.4
250.....	1.5	2.3	3.2	4.6	5.3
500.....	1.0	1.6	2.2	3.2	3.7
1,000.....	0.7	1.2	1.6	2.3	2.6
2,500.....	0.5	0.7	1.0	1.4	1.7
5,000.....	0.3	0.5	0.7	1.0	1.2
10,000.....	0.2	0.4	0.5	0.7	0.8

Table B-7. Standard Errors of Estimated Percentages

Spanish Origin

(68 chances out of 100)

Base of percentage (thousands)	Estimated percentage				
	2 or 98	5 or 95	10 or 90	25 or 75	50
50.....	3.9	6.0	8.3	12.0	13.9
100.....	2.7	4.3	5.9	8.5	9.8
250.....	1.7	2.7	3.7	5.4	6.2
500.....	1.2	1.9	2.6	3.8	4.4
1,000.....	0.9	1.4	1.9	2.7	3.1
2,500.....	0.5	0.9	1.2	1.7	2.0
5,000.....	0.4	0.6	0.8	1.2	1.4
10,000.....	0.3	0.4	0.6	0.8	1.0
15,000.....	0.2	0.3	0.5	0.7	0.8

Note: To estimate the standard errors for the period 1956 to 1966, multiply these standard errors by 1.23. For years prior to 1956, multiply by 1.5.

Table B-8. "f" Factors to be Applied to Tables B-2 through B-7 to Approximate Standard Errors

Type of characteristic ¹	Total or White (B-2 or B-5)		Black and other races (B-3 or B-6)		Spanish origin (B-4 or B-7)	
	Persons	Families	Persons	Families	Persons	Families
Marital status and household and family income.....	1.3	0.8	1.3	0.7	1.4	0.8
Residence.....	² 1.2	0.7	² 1.0	0.6	² 1.2	0.8
Kindergarten and nursery school enrollment.....	1.4	(X)	1.6	(X)	(X)	(X)
Educational attainment and school enrollment.....	0.9	(X)	0.9	(X)	0.8	(X)
	1.0	(X)	1.0	(X)	1.0	(X)

X Not applicable.

¹For metropolitan-nonmetropolitan data cross-tabulated with other data, also apply the factor 1.4 as well as the factor indicated in note.

²Persons tabulated by family income.

Note: Apply these factors to the standard error tables to obtain appropriate standard errors for the characteristic of interest.

Table E shows that 43.1 percent of the 19,452,000, 18-to-24-year olds who were not enrolled in college were in primary families and were married with spouse present. The factor in table B-8 for the marital status or household and family population characteristic for total persons is 1.3. Interpolation in table B-5 shows the standard error of 43.1 percent to be 0.5 percent. Thus, the standard error of 43.1 percent for the marital status or household and family characteristic is $0.65 = (0.5 \times 1.3)$ percent. Consequently, the chances are 68 out of 100 that the estimated 43.1 percent would be within 0.65 percentage points of a complete census figure. Chances are 95 out of 100 that the estimate would be within 1.3 percentage points of a complete census figure, i.e., the 95-percent confidence interval would be from 41.8 to 44.4.

Standard error of a difference. For a difference between two sample estimates, the standard error is approximately equal to the square root of the sum of the squared standard errors of the estimates; the estimates can be of numbers, percents, ratios, etc. This will represent the actual standard error quite accurately for the difference between two estimates of the same characteristic in two different areas, or for the difference between separate and uncorrelated characteristics in the same area. If, however, there is a high positive correlation between the two characteristics, the formula will overestimate the true standard error.

Illustration of the computation of the standard error of a difference between estimated percentages. Table E shows that 10.8 percent of the 6,935,000 persons 18 to 24 years old enrolled in college were in primary families and were married with spouse present in October of 1975. The apparent difference between the 43.1 percent of 18-to-24-year

olds who were not enrolled in college, who were in primary families and were married and the 10.8 percent described above is 32.3 percent. The standard error, σ_x , of 43.1 percent is 0.65 percent as shown above. The factor from table B-8 appropriate for the 10.8 percent is, again, 1.3. Table B-5 shows the standard error of 10.8 percent on a base of 6,935,000 to be 0.5 percent. Thus, the standard error, σ_y , of the estimate is also $0.65 = (0.5 \times 1.3)$.

To get the standard error of the estimated difference, $\sigma_{(x-y)}$, use the following formula:

$$\sigma_{(x-y)} = \sqrt{\sigma_x^2 + \sigma_y^2}$$

Therefore, the standard error of the difference of 32.3 percent is $0.9 =$

$$\sqrt{(0.65)^2 + (0.65)^2}$$

This means the chances are 68 out of 100 that the estimated difference based on the sample estimates would vary from the difference derived using complete census figures by less than 0.9 percent. The 68-percent confidence interval about the 32.3 percent difference is from 31.4 to 33.2, i.e., 32.3 ± 0.9 . A conclusion that the average estimate of the difference derived from all possible samples of the same size and design lies within a range computed in this way would be correct for roughly 68 percent of all possible samples. The 95-percent confidence interval is 30.5 to 34.1. Thus, we can conclude with 95-percent confidence that there is a significant difference between the percentage of 18-to-24-year olds enrolled in college and the percentage of 18-to-24-year olds not enrolled in college who were in primary families and married with spouse present.

Table B-9. Estimates of Population in Age, Sex, Race Groups: October 1975

(Numbers in thousands)

Age	Total		White		Black and other races	
	Male	Female	Male	Female	Male	Female
3 years.....	1,622	1,556	1,339	1,278	283	278
4 years.....	1,787	1,712	1,486	1,415	301	297
5 years.....	1,792	1,717	1,497	1,426	295	291
6 years.....	1,753	1,693	1,466	1,406	287	287
7 years.....	1,734	1,668	1,452	1,387	282	281
8 years.....	1,736	1,672	1,458	1,397	278	275
9 years.....	1,807	1,737	1,513	1,447	294	290
10 and 11 years....	3,975	3,824	3,335	3,191	640	633
12 and 13 years....	4,144	3,993	3,503	3,358	641	635
14 and 15 years....	4,300	4,153	3,645	3,500	655	653
16 and 17 years....	4,201	4,112	3,569	3,474	632	638
18 and 19 years....	3,891	4,133	3,343	3,512	548	621
20 and 21 years....	3,693	3,976	3,202	3,391	491	585
22 to 24 years.....	5,140	5,554	4,505	4,750	635	804
25 to 29 years.....	8,075	8,577	7,159	7,419	916	1,158
30 to 34 years.....	6,639	7,079	5,875	6,118	764	961