Appendix C

DEFINITIONS AND EXPLANATIONS

Population coverage. The figures shown are for the civilian noninstitutional population.

Symbols. A dash "−" represents zero or rounds to zero, and the symbol "B" means that the base for the derived figure is less than 75,000. Three dots "..." mean not applicable, and "NA" means not available.

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.

Central cities. Each SMSA must include at least one central city, and the complete title of an SMSA identifies the central city or cities. If only one central city is designated, then it must have 50,000 inhabitants or more. The area title may include, in addition to the largest city, up to two city names on the basis and in the order of the following criteria: (1) The additional city has at least 250,000 inhabitants or (2) the additional city has a population of one-third or more of that of the largest city and a minimum population of 25,000. An exception occurs where two cities have contiguous boundaries and constitute, for economic and social purposes, a single community of at least 50,000, the smaller of which must have a population of at least 15,000.

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 4-year or 2-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 2-year college (junior or community college) or a 4-year college or university. Students in the fourth academic year of college or higher were assumed to be in a 4-year college or university.

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 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 at his last birthday.

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.

Primary family. A primary family is a family that includes among its members the person or couple who maintains the household.

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.

Primary family members. All members of the family that includes the person or couple who maintains the household are considered primary family members.

Dependent family members. For the purpose of this report, a dependent family member is a relative of the family head, excluding the head's wife. Such persons are generally sons and daughters of the family head. Family members who are living away from home while attending college are also counted as dependent family members.

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 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 detailed 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 11 direct questions asked of all persons 14 years old and over identifying 23 different sources of income and cover the preceding calendar year. (See table C-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.

Income data in tables 12, 13, 14, and 25 are in 1976 current dollars. For tables A and A-5 income is shown in 1967 constant dollars and income intervals as used in 1967.

Table C-1 October CPS Control Card Family Income and March CPS Supplement Family Income: 1967 to 1976
(For meaning of symbols, see text)

Year	Median family income, October control card	Percent change	Median family income, March supplement	Percent change	October-March ratio
1967	$6,575	...	$7,974	...	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[r]	10,650	...	12,902	...	0.83
1975	11,031	3.6	13,719	6.3	0.80
1976	11,644	5.6	14,958	9.0	0.78

[r]March 1974 figures revised.

Consumer Price Index. The Consumer Price Index (CPI) is a monthly statistical measure of the average change in prices of goods and services purchased by urban wage earners and clerical workers for day-to-day living. It is based on prices of about 400 "marketbasket" items selected to represent all consumption goods and services purchased by these workers.[1] The CPI is currently based on an index of 100.0 = 1967 prices.

Consumer Price Index

YEAR	INDEX	YEAR	INDEX
1967	100.0	1972	125.3
1968	104.2	1973	133.1
1969	109.8	1974	147.7
1970	116.3	1975	161.2
1971	121.3	1976	170.5

[1] U.S. Department of Labor, Bureau of Labor Statistics, **Monthly Labor Review**, Volume 100, Number 3, March 1977.

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.

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 1976. 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, and 1960 through 1975.

Current Population Survey (CPS). The present CPS sample was initially selected from the 1970 census file and is updated continuously to reflect new construction where possible (see section "Nonsampling Variability" below). Samples for previous sample designs were selected from files the census most recently completed at the time. The following table provides a description of some aspects of the Current Population Survey design.

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......	[3]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
August 1947 to January 1954........	68	21,000	500-1,000	3,000-3,500

[1] Beginning in May 1956, these areas were chosen to provide coverage in each State and the District of Columbia.

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

[3] Three sample areas were added in 1960 to represent Alaska and Hawaii after statehood.

The monthly CPS deals mainly with labor force data for the civilian noninstitutional population. Questions relating to labor force participation are asked about each member 14 years old or older in each sample 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.

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 noninstitutional 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 this report are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken using the same schedules, instructions and enumerators. There are two types of errors possible in an estimate based on a sample survey - sampling and nonsampling. The standard errors provided for this report primarily indicate the magnitude of the sampling error. They also partially measure the effect of some nonsampling errors in response and enumeration, but do not measure any systematic biases in the data. The full 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. Nonsampling errors in surveys 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 of respondents to provide correct information, inability to recall information, errors made in collection such as in recording or coding the data, errors made in processing the data, errors made in estimating values for missing data, and failure to represent all sample households and all persons within sample households (undercoverage).

Undercoverage in the CPS results from missed housing units and missed persons within sample households. Overall undercoverage, as compared to the level of the decennial census, is about 5 percent. It is known that CPS undercoverage varies with age, sex, and race. Generally, undercoverage is larger for males than for females and larger for Blacks and other races than for Whites. Ratio estimation to independent age-sex-race population controls, as described previously, partially corrects for the biases due to survey undercoverage. However, biases exist in the estimates to the extent that missed persons in missed households or missed persons in interviewed households have different characteristics than interviewed persons in the same age-sex-race group. Further, the independent population controls used have not been adjusted for undercoverage in the 1970 census, which was estimated at 2.5 percent of the population, with differentials by age, sex, and race similar to those observed in CPS.

The approximate magnitude of two sources of undercoverage of housing units is known. Of the 83,000,000 housing units in the U.S. about 600,000 new construction housing units other than mobile homes are not represented in the CPS sample because they were assigned building permits prior to the 1970 census but building was not completed by the time of the census (i.e., April 1970). Most conventional new contruction, for which building permits were issued after the census, is represented. About 290,000 occupied mobile homes are not represented in CPS; these units were either missed in the census or have been built or occupied since the census. These estimates of missed units are relevant to the present sample only and not to earlier designs where the extent of undercoverage was generally less. The extent of other sources of undercoverage of housing units is unknown but believed to be small.

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. 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 differences 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. In order to derive standard errors that would be applicable to a larger number of estimates and could be prepared at a moderate cost, a number of approximations were required. Therefore, instead of providing an individual standard error for each estimate, generalized sets of standard errors are provided for various types of characteristics. As a result, the sets of standard

errors (along with factors) provided give an indication of the order of magnitude of the standard error of an estimate rather than the precise standard error.

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

Table C-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 C-4 or C-7 by the factor 1.4 from table C-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 1976, 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

$$\sigma_x = f\sigma \qquad (1)$$

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

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

Total or White Population

(68 chances out of 100. Numbers in thousands. For meaning of symbols, see text)

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.......	-	-	-	-	-	-	-	-	-	-

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.

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:

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

In this formula f is the appropriate factor from table C-8 and σ is the standard error for total or White persons in table C-5, the standard error for Black and other races in table C-6, or the standard error for Spanish origin persons in table C-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 A-4 of this report shows that in October 1976 there were 1,546,000 women 18 and 19 years old enrolled in college. The estimated total number of women 18 and 19 years old from table C-9 is 4,189,000. The factor in table C-8 for education, total or White, is 1.0. Using both the 4,189,000 estimated women in the age group and the estimated 1,546,000 women in the age group in college with table C-2 and formula (1), an approximate standard error of 42,000 = (42,000 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 42,000. The chances are 95 out of 100 that the estimate would bave been a figure differing from a complete census figure by less than 84,000 (twice the standard error).

Table A-5 shows that 17.1 percent of the 749,000, 18 to 24 year old male dependents in families with incomes less than $3,000 were enrolled in college in October of 1976. The factor in table C-8 for education, total or White is 1.0. Interpolation in table C-5 shows the standard error of 17.1 percent to be 2.0 percent. Thus, the standard error of 17.1 percent for education is 2.0 = (2.0 x 1.0). Consequently, the chances are 68 out of 100 that the estimated 17.1 percent would be within 2.0 percentage points of a complete census figure. Chances are 95 out of 100 that the estimate would be within 4.0 percentage points of a complete census figure, i.e., the 95-percent confidence interval would be from 13.1 to 21.1.

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.

Table A-5 shows that 54.5 percent of the 1,253,000 18 to 24 year old male dependents in families with incomes $15,000 and greater were enrolled in college in October of 1976. The apparent difference between the 17.1 percent of 18 to 24 year old male dependents in families with incomes

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

Black and Other Races

(68 chances out of 100. Numbers in thousands. For meaning of symbols, see text)

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.....................	–	–	–	–	–	–	–

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

Spanish Origin

(68 chances out of 100. Numbers in thousands. For meaning of symbols, see text)

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...................	-	-	-	-	-	-	-

Table C-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...................	0.13	0.2	0.3	0.4	0.5
50,000...................	0.09	0.14	0.2	0.3	0.3
100,000..................	0.06	0.10	0.14	0.2	0.2

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.

less than $3,000 enrolled in college and the 54.5 percent described above is 37.4 percent. The standard error, σ_x, of 17.1 percent is 2.0 percent as shown above. The factor from table C-8 appropriate for the 54.5 percent is, again 1.0. Table C-5 shows the standard error of 54.5 percent on a base of 1,253,000 to be 2.1 percent. Thus, the standard error, σ_y, of the estimate is also 2.1 = (2.1 x 1.0).

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 37.4 percent is $2.9 \doteq \sqrt{(2.0)^2 + (2.1)^2}$. 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 2.9 percent. The 68 percent confidence interval about the 37.4 percent difference is from 34.5 to 40.3, i.e., 37.4 ± 2.9. 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 31.6 to 43.2. Thus, we can conclude with .95-percent confidence that there is a significant difference between the percentage of 18 to 24 year old male dependents in families with incomes less than $3,000 enrolled in college, and the percentage of 18 to 24 year old male dependents in families with incomes $15,000 or greater who were enrolled in college.

Table C-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

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 C-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

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

(For meaning of symbols, see text)

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

[1]For metropolitan-nonmetropolitan data cross-tabulated with other data, also apply the factor 1.4 as well as the factor indicated in note.
[2]Persons tabulated by family income.

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

Table C-9. Estimates of Population in Age, Sex, Race Groups: October 1976

(Numbers in thousands)

Age (years)	Total		White		Black and other races	
	Male	Female	Male	Female	Male	Female
3 years..........	1,542	1,477	1,267	1,208	274	268
4 years..........	1,642	1,578	1,354	1,294	288	284
5 years..........	1,784	1,704	1,479	1,405	305	299
6 years..........	1,795	1,730	1,498	1,434	297	296
7 years..........	1,759	1,694	1,470	1,406	289	289
8 years..........	1,711	1,645	1,434	1,370	277	275
9 years..........	1,756	1,690	1,473	1,410	284	281
10 and 11 years..	3,784	3,642	3,159	3,024	625	618
12 and 13 years..	4,067	3,917	3,427	3,283	640	634
14 and 15 years..	4,275	4,124	3,614	3,468	661	656
16 and 17 years..	4,199	4,105	3,558	3,460	641	646
18 and 19 years..	3,956	4,189	3,392	3,558	564	632
20 and 21 years..	3,770	4,039	3,256	3,433	513	606
22 to 24 years...	5,285	5,678	4,627	4,850	658	827
25 to 29 years...	8,370	8,883	7,400	7,657	971	1,227
30 to 34 years...	6,880	7,309	6,096	6,320	784	989