



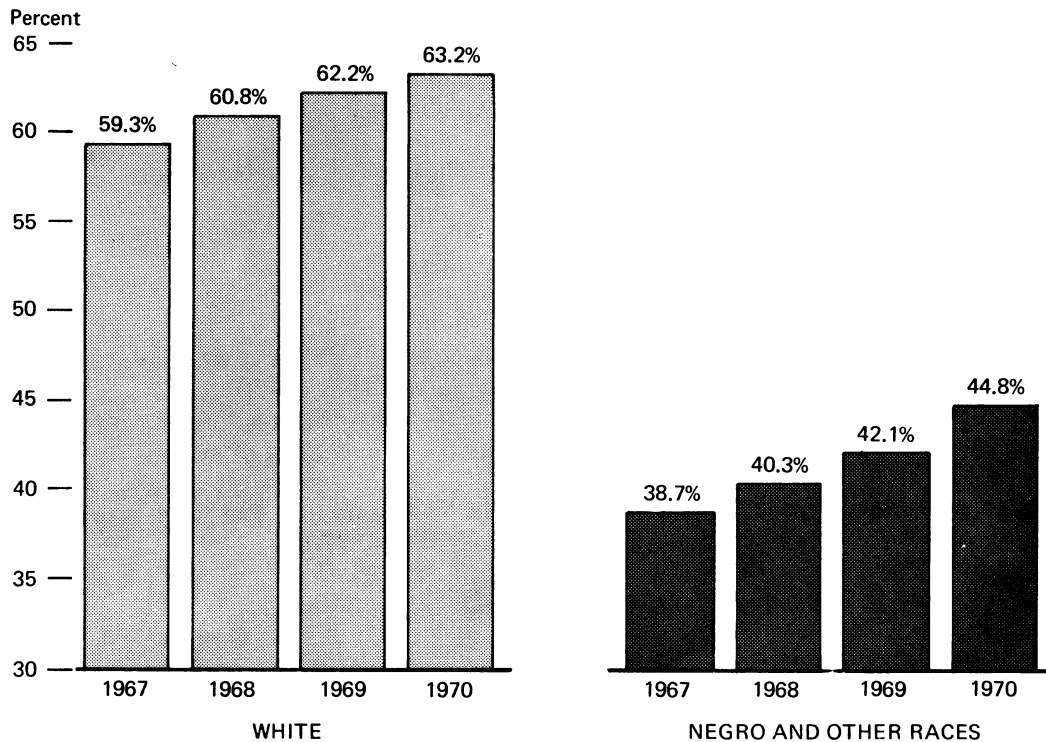
Population Characteristics

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EDUCATIONAL ATTAINMENT IN 30 SELECTED STANDARD METROPOLITAN STATISTICAL AREAS: 1970

Figure 1.--Percent of Persons 25 Years Old and Over in 30 Selected SMSA's Who Had Completed 4 Years of High School or More, by Race: 1967-1970



CONTENTS

	Page
Introduction	1
Related reports	4
Definitions and explanations	6
Source and reliability of the estimates	7

TEXT TABLES

Table

A. Percent of persons 25 years old and over who had completed 4 years of high school or more, by residence and race, for 30 selected standard metropolitan statistical areas: 1970 and 1967.	2
B. Percent of persons 25 years old and over who had completed 1 year of college or more, by residence and race, for 30 selected standard metropolitan statistical areas: 1970 and 1967.	2
C. Percent of persons 25 years old and over who had completed 4 years of high school or more, in 30 selected standard metropolitan statistical areas: 1970 and 1967.	4
D. Percent of persons 25 years old and over who had completed 1 year of college or more, in 30 selected standard metropolitan statistical areas: 1970 and 1967	5
E. Standard errors for estimated percentages in 30 selected standard metropolitan statistical areas	7

CHARTS

Figure

1. Percent of persons 25 years old and over in 30 selected SMSA's who had completed 4 years of high school or more, by race: 1967-1970	Cover
2. Percent of persons 25 years old and over living inside and outside the central cities of 30 selected SMSA's who had completed 4 years of high school or more: 1967-1970.	3
3. Percent of persons 25 years old and over in the New Orleans, La., SMSA who had completed 4 years of high school or more: 1967-1970.	3

DETAILED TABLE

Percent distribution of years of school completed by persons 25 years old and over, by race, for 30 selected standard metropolitan statistical areas: 1969	9
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For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, 15 cents. Current Population Reports issued in Series P-20, P-23, P-25, P-26, P-27, P-28 (summaries only), P-60, and P-65 are sold as a single consolidated subscription at \$14.00 per year, \$3.50 additional for foreign mailing.

Educational Attainment in 30 Selected Standard Metropolitan Statistical Areas: 1970

The adults (25 years old and over) who lived in 30 of the Nation's large standard metropolitan statistical areas in 1970 had completed a relatively high level of educational attainment. About 61 percent had completed at least a high school education, including 26 percent who had completed 1 or more years of college.

The data in this report on the educational attainment of the population 25 years old and over in each of 30 large SMSA's are based on the annual average of the 1970 monthly statistics on years of school completed collected in the Current Population Survey conducted by the Bureau of the Census. The SMSA's included in this report are:

Atlanta, Ga.	Memphis, Tenn.
Baltimore, Md.	Milwaukee, Wis.
Boston, Mass.	Minneapolis-St. Paul, Minn.
Buffalo, N.Y.	New Orleans, La.
Chicago, Ill.	New York, N.Y.
Cincinnati, Ohio-Ky.	Newark, N.J.
Cleveland, Ohio	Philadelphia, Pa.-N.J.
Columbus, Ohio	Phoenix, Ariz.
Dallas, Tex.	Pittsburgh, Pa.
Denver, Colo.	St. Louis, Mo.-Ill.
Detroit, Mich.	San Antonio, Tex.
Houston, Tex.	San Diego, Calif.
Indianapolis, Ind.	San Francisco-Oakland, Calif.
Kansas City, Mo.-Kans.	Seattle, Wash.
Los Angeles-Long Beach, Calif.	Washington, D.C.-Md.-Va.

The adults who lived in these 30 standard metropolitan statistical areas in 1970 were more likely to be high school graduates and were also more likely to have completed some years of college than were the adults who lived in these areas three years earlier in 1967 (when educational attainment data for individual SMSA's first became available since the 1960 Census of Population). In 1970, 61 percent of these adults were high school graduates (including those who had completed some years of college) as compared

with 57 percent in 1967 (table A). And in 1970, 26 percent of these adults had completed some years of college as compared with 23 percent in 1967 (table B). The gains in educational attainment in these 30 selected SMSA's between 1967 and 1970 were similar to those in all SMSA's combined.

Several factors could have been related to these gains in educational attainment levels including increased schooling on the part of the resident adults, the in-migration of adults with higher levels of education, and the replacement of older cohorts with younger adults who had completed more years of school.

There were educational attainment gains between 1967 and 1970 both for adults who lived inside the central cities of these metropolitan areas and for those who lived outside the central cities. In 1970, 67 percent of those persons who lived outside the central cities were at least high school graduates as compared with 63 percent in 1967.

In 1970, 29 percent of those persons who lived outside the central cities had completed some years of college as compared with 27 percent in 1967. Among central city adults, the percent who were at least high school graduates increased from 50 percent in 1967 to 54 percent in 1970. And the percent who had completed some years of college increased from 20 percent to 22 percent.

There were educational gains for both the whites and persons of Negro and other races who lived in these metropolitan areas. In 1970, 63 percent of these metropolitan whites had completed at least a high school education as compared with 59 percent in 1967. And in 1970, 27 percent of the whites had completed some years of college as compared with 25 percent in 1967. The proportion of persons of Negro and other races who had completed at least a high

Table A. Percent of Persons 25 Years Old and Over Who Had Completed 4 Years of High School or More, by Residence and Race, for 30 Selected Standard Metropolitan Statistical Areas: 1970 and 1967

(Civilian noninstitutional population)

Residence and race	1970	1967	Change, 1967 to 1970	
			Percentage points	Percent
Total.....	60.9	56.8	4.1	7.2
In central cities.....	53.6	49.9	3.7	7.4
Outside central cities.....	66.9	63.2	3.7	5.9
White.....	63.2	59.3	3.9	6.6
In central cities.....	56.7	53.1	3.6	6.8
Outside central cities.....	67.6	64.2	3.4	5.3
Negro and other races.....	44.8	38.7	6.1	15.8
In central cities.....	43.0	38.1	4.9	12.9
Outside central cities.....	52.2	41.9	10.3	24.6

Table B. Percent of Persons 25 Years Old and Over Who Had Completed 1 Year of College or More, by Residence and Race, for 30 Selected Standard Metropolitan Statistical Areas: 1970 and 1967

(Civilian noninstitutional population)

Residence and race	1970	1967	Change, 1967 to 1970	
			Percentage points	Percent
Total.....	25.7	23.3	2.4	10.3
In central cities.....	22.0	19.8	2.2	11.1
Outside central cities.....	28.7	26.6	2.1	7.9
White.....	27.0	24.7	2.3	9.3
In central cities.....	24.1	21.6	2.5	11.6
Outside central cities.....	29.0	27.1	1.9	7.0
Negro and other races.....	16.3	13.3	3.0	22.6
In central cities.....	14.9	12.8	2.1	16.4
Outside central cities.....	22.0	15.9	6.1	38.4

school education increased from 39 percent in 1967 to 45 percent in 1970. The proportion who had completed some years of college increased from 13 percent to 16 percent.

One of the standard metropolitan statistical areas with a striking increase (although not necessarily the largest) in educational attainment level was New Orleans, La. In 1970, 52 percent of the adults in the New Orleans SMSA were at least high school graduates as compared with 42 percent in 1967--an increase of one-fifth in the proportion who were high school graduates (table C). The proportion of the adults in the New

Orleans SMSA who had completed some years of college was 23 percent in 1970 as compared with 17 percent in 1967--an increase of two-fifths in the proportion with some college education (table D).

The residents of the Washington, D.C.-Md.-Va., SMSA were the most likely of any of these metropolitan residents in 1970 to have completed some years of college. Among the adults who lived in the Washington metropolitan area in 1970, 41 percent had completed some years of college. In 1967, 37 percent of the Washington metropolitan area adults had completed some years of college.

Figure 2.-- Percent of Persons 25 Years Old and Over Living Inside and Outside the Central Cities of 30 Selected SMSA's Who Had Completed 4 Years of High School or More: 1967-1970

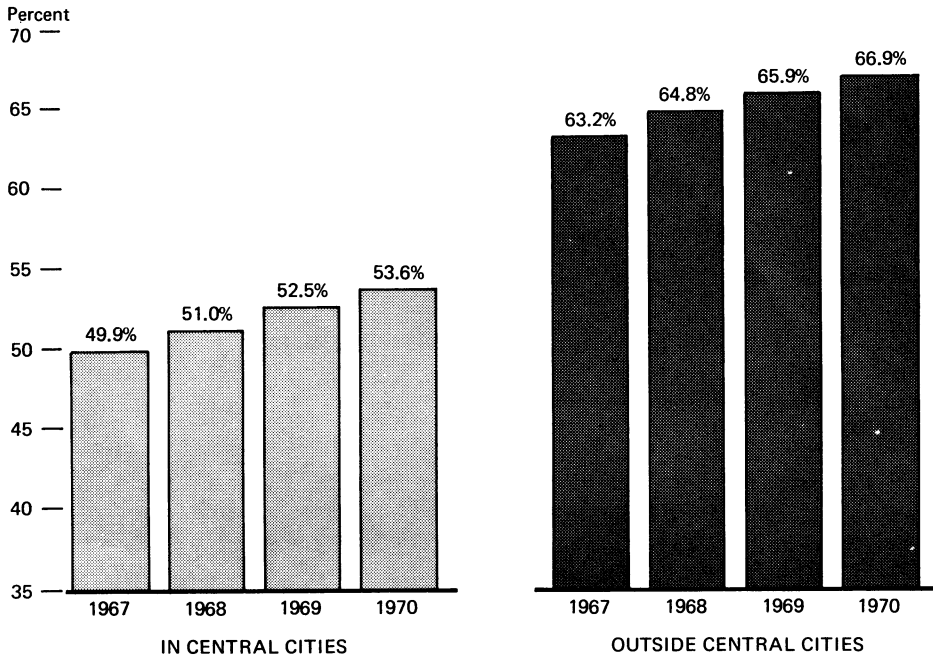


Figure 3.--Percent of Persons 25 Years Old and Over in the New Orleans, La., SMSA Who Had Completed 4 Years of High School or More: 1967-1970

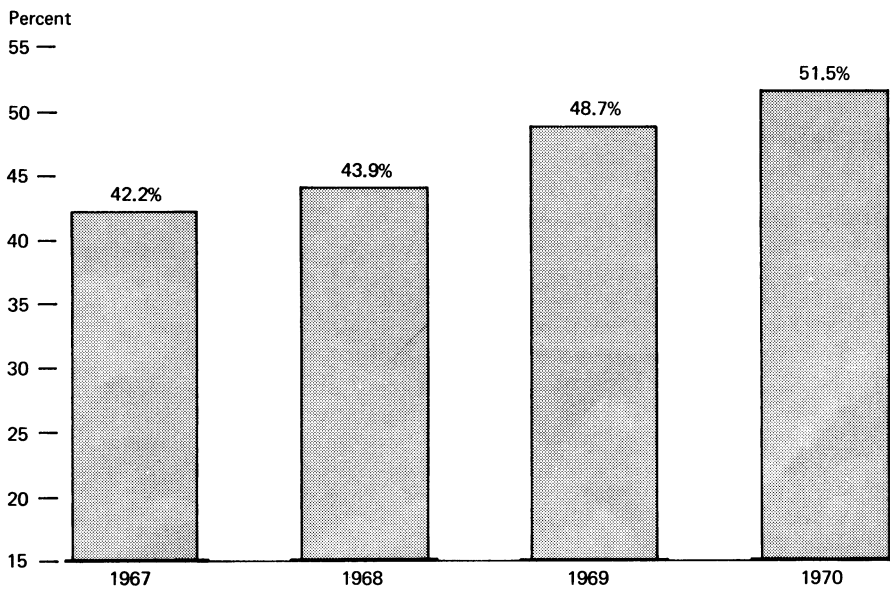


Table C. Percent of Persons 25 Years Old and Over Who Had Completed 4 Years of High School or More, in 30 Selected Standard Metropolitan Statistical Areas: 1970 and 1967

(Civilian noninstitutional population)

Standard metropolitan statistical area	1970	1967	Change, 1967 to 1970	
			Percentage points	Percent
Total.....	60.9	56.8	+4.1	+7.2
Atlanta, Ga.....	58.3	55.2	+3.1	+5.6
Baltimore, Md.....	45.2	43.8	+1.4	+3.2
Boston, Mass.....	68.7	65.9	+2.8	+4.2
Buffalo, N.Y.....	57.4	48.7	+8.7	+17.9
Chicago, Ill.....	58.8	55.4	+3.4	+6.1
Cincinnati, Ohio-Ky.....	55.1	48.6	+6.5	+13.4
Cleveland, Ohio.....	59.3	53.5	+5.8	+10.8
Columbus, Ohio.....	67.7	60.6	+7.1	+11.7
Dallas, Tex.....	66.4	60.8	+5.6	+9.2
Denver, Colo.....	71.9	67.6	+4.3	+6.4
Detroit, Mich.....	54.5	50.6	+3.9	+7.7
Houston, Tex.....	55.4	57.7	-2.3	-4.0
Indianapolis, Ind.....	58.6	58.0	+0.6	+1.0
Kansas City, Mo.-Kans.....	62.9	59.8	+3.1	+5.2
Los Angeles-Long Beach, Calif.....	67.1	65.3	+1.8	+2.8
Memphis, Tenn.....	55.5	50.5	+5.0	+9.9
Milwaukee, Wis.....	61.8	52.2	+9.6	+18.4
Minneapolis-St. Paul, Minn.....	70.5	65.1	+5.4	+8.3
New Orleans, La.....	51.5	42.2	+9.3	+22.0
New York, N.Y.....	57.5	53.3	+4.2	+7.9
Newark, N.J.....	58.1	51.3	+6.8	+13.3
Philadelphia, Pa.-N.J.....	56.4	52.8	+3.6	+6.8
Phoenix, Ariz.....	63.3	59.1	+4.2	+7.1
Pittsburgh, Pa.....	56.0	51.8	+4.2	+8.1
St. Louis, Mo.-Ill.....	51.1	47.7	+3.4	+7.1
San Antonio, Tex.....	49.8	52.5	-2.7	-5.1
San Diego, Calif.....	67.4	64.3	+3.1	+4.8
San Francisco-Oakland, Calif.....	72.2	67.1	+5.1	+7.6
Seattle, Wash.....	70.2	68.5	+1.7	+2.5
Washington, D.C.-Md.-Va.....	75.2	69.6	+5.6	+8.0

RELATED REPORTS

Data on educational attainment for persons 25 years old and over for these same 30 SMSA's for 1967, 1968, and 1969 were published in Current Population Reports, Series P-20, Nos. 209, 214, and 219, respectively. Data on educational attainment for persons 14 years old and over for the United States for March 1959, 1962, 1964, 1965 and 1966, 1967, 1968, 1969, and 1970 were published in Current Population Reports, Series P-20, Nos. 99, 121, 138, 158, 169, 182, 194, and 207, respectively. Data on the age, sex, and color composition of the population of all standard metropolitan statistical areas of the United States for 1960 to 1966 were presented in Current Population Reports, Series P-20, No. 163. Comparable statistics with components of change for

1960 to 1969 were published in the same series in report No. 197.

Statistics on educational attainment of the Negro population are presented in Current Population Reports, Series P-20, No. 175. Further information on educational attainment is presented in "Educational Change in a Generation: March 1962," Series P-20, No. 132. In addition, educational attainment as determined in the Current Population Survey is related to labor force characteristics in publications of the Bureau of Labor Statistics, as in "Educational Attainment of Workers," published in the March Monthly Labor Review. Statistics on educational attainment are also available in several reports of the 1960 Census of Population, the most relevant of which is PC(2)-5B, Educational Attainment. Volume I, Characteristics of the Population, chapter C,

Table D. Percent of Persons 25 Years Old and Over Who Had Completed 1 Year of College or More, in 30 Selected Standard Metropolitan Statistical Areas: 1970 and 1967

(Civilian noninstitutional population)

Standard metropolitan statistical area	1970	1967	Change, 1967 to 1970	
			Percentage points	Percent
Total.....	25.7	23.3	+2.4	+10.3
Atlanta, Ga.....	28.4	24.8	+3.6	+14.5
Baltimore, Md.....	16.9	15.8	+1.1	+7.0
Boston, Mass.....	27.4	27.1	+0.3	+1.1
Buffalo, N.Y.....	22.3	18.3	+4.0	+21.9
Chicago, Ill.....	25.1	23.6	+1.5	+6.4
Cincinnati, Ohio-Ky.....	24.8	19.0	+5.8	+30.5
Cleveland, Ohio.....	22.5	20.4	+2.1	+10.3
Columbus, Ohio.....	30.2	24.1	+6.1	+25.3
Dallas, Tex.....	32.5	31.2	+1.3	+4.2
Denver, Colo.....	32.1	29.1	+3.0	+10.3
Detroit, Mich.....	17.7	18.0	-0.3	-1.7
Houston, Tex.....	22.3	27.7	-5.4	-19.5
Indianapolis, Ind.....	23.4	20.8	+2.6	+12.5
Kansas City, Mo.-Kans.....	25.6	24.1	+1.5	+6.2
Los Angeles-Long Beach, Calif.....	32.3	29.7	+2.6	+8.8
Memphis, Tenn.....	20.1	20.5	-0.4	-2.0
Milwaukee, Wis.....	22.9	18.3	+4.6	+25.1
Minneapolis-St. Paul, Minn.....	28.6	26.7	+1.9	+7.1
New Orleans, La.....	23.3	16.6	+6.7	+40.4
New York, N.Y.....	23.1	20.9	+2.2	+10.5
Newark, N.J.....	21.4	17.8	+3.6	+20.2
Philadelphia, Pa.-N.J.....	20.4	18.0	+2.4	+13.3
Phoenix, Ariz.....	28.0	24.7	+3.3	+13.4
Pittsburgh, Pa.....	15.2	14.3	+0.9	+6.3
St. Louis, Mo.-Ill.....	20.4	17.7	+2.7	+15.3
San Antonio, Tex.....	22.0	21.9	+0.1	+0.5
San Diego, Calif.....	33.1	27.7	+5.4	+19.5
San Francisco-Oakland, Calif.....	35.4	31.8	+3.6	+11.3
Seattle, Wash.....	32.6	31.3	+1.3	+4.2
Washington, D.C.-Md.-Va.....	40.6	37.4	+3.2	+8.6

"General Social and Economic Characteristics," and chapter D, "Detailed Characteristics," also include statistics on educational attainment. Report PC(2)-1C, Nonwhite Population by Race, includes educational data for selected races.

Apart from the different dates at which the statistics were collected, the education data from the Current Population Survey may differ from those from the census and from projections based on the census for the following reasons: (1) Members of the Armed Forces and inmates of institutions are excluded from the survey. All members of the Armed Forces in the United States and inmates of institutions are included in the census data. (2) Statistics from both the census and the CPS are subject to sampling and response errors. There are differences in coverage, enumeration techniques (self-enumeration versus direct enumeration), and the methods of allocating nonresponses.

The Content Evaluation Study of the 1960 census is a major source of information about the accuracy of census data on educational attainment. A comparison by detailed categories of years of school reported for each level suggests a net overreporting on years of school completed for about 6 percent of the population 25 years old and over.¹ A comparison of CPS with census figures shows that the CPS figures include more persons with 12 years or more of school completed and fewer with less than 12 years. If the Content Evaluation Study is taken as a standard, the 1960 census figures on educational attainment show a slight upward bias. The CPS figures are still higher than the census figures and may, therefore, be more biased in the direction of high educational attainment.

¹Evaluation and Research Program of the U.S. Censuses of Population and Housing, 1960: Accuracy of Data on Population Characteristics as Measured by Reinterviews, Series ER 60, No. 4, table 12.

Because of the differences mentioned above, care should be exercised in comparing the data for 1969 with those from the 1960 census.

DEFINITIONS AND EXPLANATIONS

Population coverage. The figures in this report for 1970 are sample survey data and relate to the civilian noninstitutional population.

Age. The age classification is based on the age of the person at his last birthday.

Race. The term "race" in this report refers to the division of population into three groups, white, Negro, and other races. The group designated as "other races" consists of Indians, Japanese, Chinese, and any other race except white and Negro.

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 or 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.

The median years of school completed is defined as the value which divides the population into two equal parts--one-half having completed more schooling and one-half having completed less schooling than the median. This median was computed after the statistics on years of school completed had been converted to a continuous series of numbers (e.g., completion of the first year of high school was treated as completion of the 9th year and the completion of the first year of college as completion of the 13th year). The persons completing a given school year were assumed to be distributed evenly within the interval from .0 to .9 of the year (for example, persons completing the 12th year were assumed to be distributed evenly between 12.0 and 12.9). Because of the inexact assumption as to the dis-

tribution within an interval, this median is more appropriately used for comparing groups and the same group at different dates than as an absolute measure of educational attainment.

Assignment of educational attainment for those not reporting. When information on either the highest grade attended or completion of the grade was not reported in the survey, entries for the items were assigned using an edit in the computer. The general procedure was to assign an entry for a person that was consistent with entries for other persons with similar characteristics. The specific technique used in the survey was as follows:

1. The computer stored reported data on highest grade attended by color and age, and on completion of the grade by age and highest grade attended, for persons 14 years old and over in the population.

2. Each stored value was retained in the computer only until a succeeding person having the same characteristics (e.g., same color and age, in the case of assignments for highest grade attended) and having the item reported, was processed through the computer. Then the reported data for the succeeding person were stored in place of the one previously stored.

3. When one or both of the education items for a person 14 years old and over was not reported, the entry assigned to this person was that stored for the last person who had the same characteristics.

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 1960 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.

SOURCE AND RELIABILITY OF THE ESTIMATES

Source of data. The estimated percentages for 1967 and 1970 are based on annual averages of 1967 monthly data and 1970 monthly data, respectively, from some areas (i.e., 30 selected standard metropolitan statistical areas) included in the Current Population Survey of the Bureau of the Census. Approximately 19,000 households are eligible for interview in these areas each month. Of this number, 850 occupied units on the average, are visited but interviews are not obtained because the occupants are not found at home after repeated calls or are unavailable for some other reason. In addition to the 19,000, there are also about 3,200 sample units in an average month which are visited but are found to be vacant or otherwise not to be interviewed.

The estimation procedure used in this survey involved 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 1960 Census of Population; statistics of births, deaths, immigration and emigration; and statistics on the strength of the Armed Forces.

Reliability of the estimates. Since the estimates are based on a sample they may differ

somewhat from figures obtained if a complete census had been taken using the same schedules, instructions, and enumerators. As in any survey work, the results are subject to errors of response and of reporting as well as being subject to sampling variability. The standard error is primarily a measure of sampling variability, that is, of the variations that occur by chance because a sample rather than the whole of the population is surveyed. As calculated for this report, the standard error also partially measures the effect of response and enumeration errors but 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 the chances are about 95 out of 100 that the difference would be less than twice the standard error.

All 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 the use of the phrase "some evidence") have a level of significance between 1.6 and 2.0 standard errors.

The reliability of an estimated percentage, computed by using sample data for both numerator and denominator, depends upon both the size of the percentage and the size of the total upon which the 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. Table E contains the standard errors of estimated percentages. The detailed table contains the base numbers of the percentages for 1970 to be used in conjunction with table E. When computing standard errors for

Table E. Standard Errors for Estimated Percentages in 30 Selected Standard Metropolitan Statistical Areas

(68 chances out of 100)

Estimated percentage of persons	Base of percentage (thousands)									
	50	100	250	500	1,000	2,000	5,000	10,000	15,000	20,000
2 or 98....	0.4	0.3	0.2	0.1	0.1	0.07	0.04	0.03	0.02	0.02
5 or 95....	0.9	0.8	0.4	0.3	0.2	0.2	0.1	0.07	0.05	0.05
10 or 90...	1.7	1.3	0.8	0.5	0.4	0.3	0.2	0.1	0.1	0.09
25 or 75...	2.8	2.0	1.3	0.8	0.6	0.4	0.3	0.2	0.1	0.1
50.....	3.7	2.5	1.6	1.2	0.7	0.5	0.4	0.3	0.2	0.2

percentages for 1967, (for which the base numbers are not given) the reader should assume the base is the same as that for the corresponding 1970 figure.

Illustration of the use of a table of standard errors. Table D of this report shows that in 1970, 28.6 percent of total persons 25 years old and over in the Minneapolis-St. Paul SMSA, finished 1 year of college or more. The detailed table shows that in the Minneapolis-St. Paul SMSA

there were approximately 900,000 total persons 25 years old and over in 1970. Table E shows the standard error of 28.6 percent on a base of 900,000 to be approximately 0.7 percent. Consequently, chances are 68 out of 100 that the estimated 28.6 percent would be within 0.7 percentage points of a complete census figure, and chances are 95 out of 100 that the estimate would be within 1.4 percentage points of a census figure, i.e., this 95 percent confidence interval would be from 27.2 to 30.0 percent.