

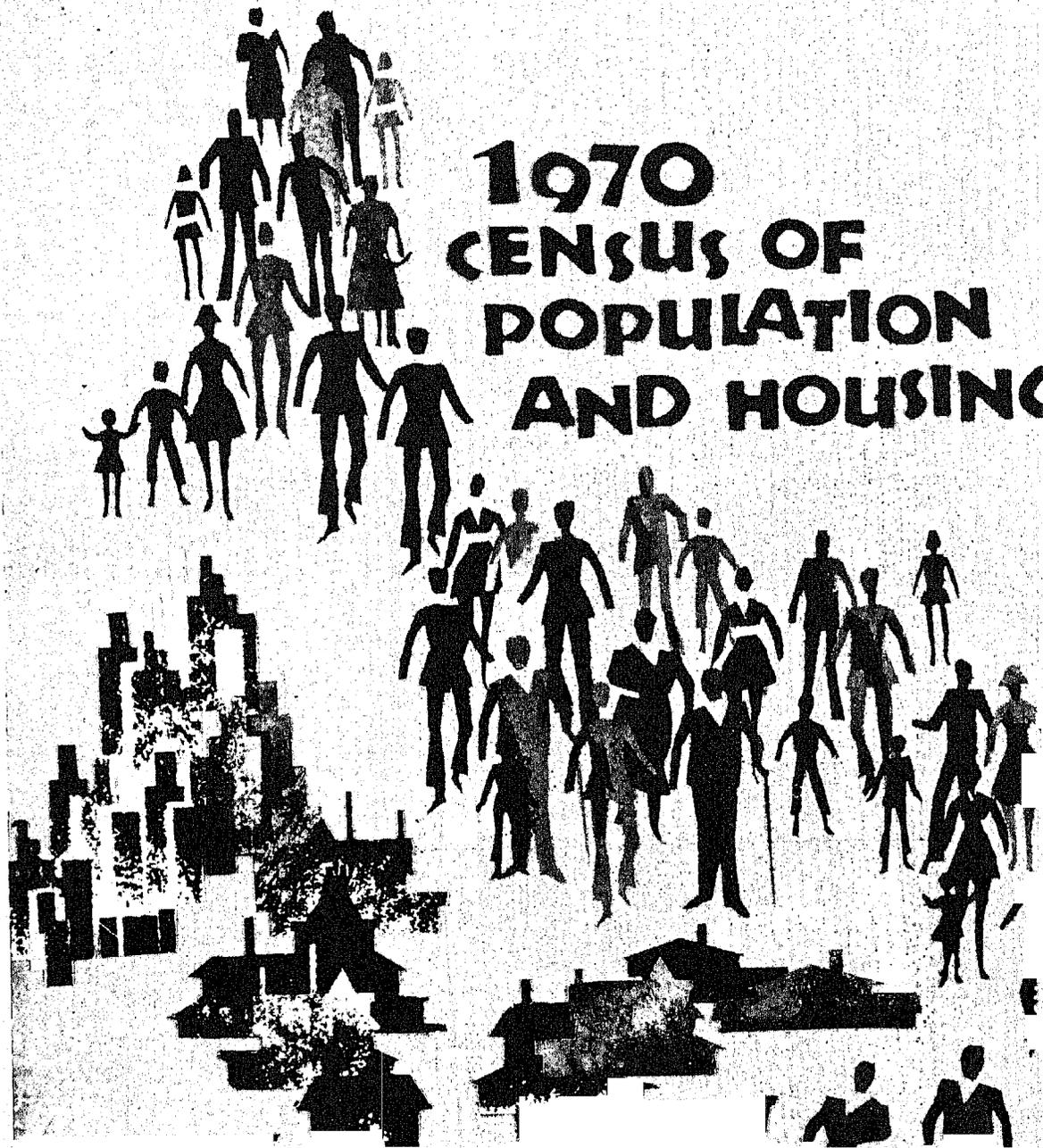
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Census Tracts

BIRMINGHAM, ALA.
STANDARD METROPOLITAN STATISTICAL AREA



1970 CENSUS OF POPULATION AND HOUSING

U.S. DEPARTMENT
OF COMMERCE
Social and Economic
Statistics Administration

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THE CENSUS

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1970 CENSUS OF POPULATION AND HOUSING

Census Tracts

BIRMINGHAM, ALA.
STANDARD METROPOLITAN
STATISTICAL AREA

Issued May 1972

CONTENTS	page
List of PHC(1) Census Tract Reports	II
Introduction	IV
Comparability of Census Tracts, 1960-1970	VII
Appendix A, Area Classifications	App-1
Appendix B, Definitions and Explanations of Subject Characteristics	App-3
Appendix C, Accuracy of the Data	App-13
Appendix D, Publication and Computer Summary Tape Program	App-20

TABLES

POPULATION CHARACTERISTICS

P-1	General Characteristics of the Population: 1970	P-1
P-2	Social Characteristics of the Population: 1970	P-13
P-3	Labor Force Characteristics of the Population: 1970	P-25
P-4	Income Characteristics of the Population: 1970	P-37
P-5	General and Social Characteristics of the Negro Population: 1970	P-49
P-6	Economic Characteristics of the Negro Population: 1970	P-56
P-7	General and Social Characteristics of Persons of Spanish Language: 1970	P-63
P-8	Economic Characteristics of Persons of Spanish Language: 1970	P-64

HOUSING CHARACTERISTICS

H-1	Occupancy, Utilization, and Financial Characteristics of Housing Units: 1970	H-1
H-2	Structural, Equipment, and Financial Characteristics of Housing Units: 1970	H-13
H-3	Occupancy, Utilization, and Financial Characteristics of Housing Units With Negro Head of Household: 1970	H-25
H-4	Structural, Equipment, and Financial Characteristics of Housing Units With Negro Head of Household: 1970	H-29
H-5	Characteristics of Housing Units With Household Head of Spanish Language: 1970	H-33

Maps identifying the tracts covered herein are included in or accompany this report

LIST OF PHC(1) CENSUS TRACT REPORTS

The reports listed below are for Standard Metropolitan Statistical Areas. An asterisk (*) indicates that the report includes data for tracts in selected areas adjacent to the SMSA.

Report number	Area	Report number	Area	Report number	Area
1	Abilene, Tex.	41	Charlotte, N.C.*	81	Great Falls, Mont.
2	Akron, Ohio	42	Chattanooga, Tenn.-Ga.	82	Green Bay, Wis.
3	Albany, Ga.	43	Chicago, Ill.	83	Greensboro-Winston-Salem-High Point, N.C.
4	Albany-Schenectady-Troy, N.Y.	44	Cincinnati, Ohio-Ky.-Ind.	84	Greenville, S.C.
5	Albuquerque, N. Mex.	45	Cleveland, Ohio	85	Hamilton-Middletown, Ohio
6	Allentown-Bethlehem-Easton, Pa.-N.J.	46	Colorado Springs, Colo.	86	Harrisburg, Pa.
7	Altoona, Pa.	47	Columbia, Mo.	87	Hartford, Conn.*
8	Amarillo, Tex.	48	Columbia, S.C.	88	Honolulu, Hawaii*
9	Anaheim-Santa Ana-Garden Grove, Calif.	49	Columbus, Ga.-Ala.	89	Houston, Tex.*
10	Anderson, Ind.	50	Columbus, Ohio	90	Huntington-Ashland, W. Va.-Ky.- Ohio*
11	Ann Arbor, Mich.	51	Corpus Christi, Tex.	91	Huntsville, Ala.
12	Appleton-Oshkosh, Wis.	52	Dallas, Tex.	92	Indianapolis, Ind.
13	Asheville, N.C.	53	Davenport-Rock Island-Moline, Iowa-Ill.	93	Jackson, Mich.
14	Atlanta, Ga.*	54	Dayton, Ohio	94	Jackson, Miss.
15	Atlantic City, N.J.	55	Decatur, Ill.	95	Jacksonville, Fla.
16	Augusta, Ga.-S.C.	56	Denver, Colo.	96	Jersey City, N.J.
17	Austin, Tex.	57	Des Moines, Iowa	97	Johnstown, Pa.
18	Bakersfield, Calif.	58	Detroit, Mich.*	98	Kalamazoo, Mich.
19	Baltimore, Md.	59	Dubuque, Iowa	99	Kansas City, Mo.-Kans.*
20	Baton Rouge, La.*	60	Duluth-Superior, Minn.-Wis.	100	Kenosha, Wis.
21	Bay City, Mich.	61	Durham, N.C.	101	Knoxville, Tenn.*
22	Beaumont-Port Arthur-Orange, Tex.	62	El Paso, Tex.	102	Lafayette, La.
23	Billings, Mont.	63	Erie, Pa.	103	Lafayette-West Lafayette, Ind.
24	Biloxi-Gulfport, Miss.	64	Eugene, Oreg.	104	Lake Charles, La.
25	Binghamton, N.Y.-Pa.	65	Evansville, Ind.-Ky.	105	Lancaster, Pa.
26	Birmingham, Ala.	66	Fall River, Mass.-R.I.	106	Lansing, Mich.
27	Bloomington-Normal, Ill.	67	Fargo-Moorhead, N. Dak.-Minn.	107	Laredo, Tex.
28	Boise City, Idaho	68	Fayetteville, N.C.	108	Las Vegas, Nev.
29	Boston, Mass.*	69	Fitchburg-Leominster, Mass.*	109	Lawrence-Haverhill, Mass.-N.H.
30	Bridgeport, Conn.	70	Flint, Mich.	110	Lawton, Okla.
31	Bristol, Conn.*	71	Fort Lauderdale-Hollywood, Fla.	111	Lewiston-Auburn, Maine
32	Brockton, Mass.	72	Fort Smith, Ark.-Okla.	112	Lexington, Ky.
33	Brownsville-Harlingen-San Benito, Tex.	73	Fort Wayne, Ind.	113	Lima, Ohio
34	Bryan-College Station, Tex.	74	Fort Worth, Tex.*	114	Lincoln, Nebr.
35	Buffalo, N.Y.	75	Fresno, Calif.	115	Little Rock-North Little Rock, Ark.
36	Canton, Ohio	76	Gadsden, Ala.	116	Lorain-Elyria, Ohio*
37	Cedar Rapids, Iowa	77	Gainesville, Fla.	117	Los Angeles-Long Beach, Calif.
38	Champaign-Urbana, Ill.	78	Galveston-Texas City, Tex.	118	Louisville, Ky.-Ind.
39	Charleston, S.C.*	79	Gary-Hammond-East Chicago, Ind.	119	Lowell, Mass.
40	Charleston, W. Va.	80	Grand Rapids, Mich.*	120	Lubbock, Tex.

Report number	Area
121	Lynchburg, Va.*
122	Macon, Ga.*
123	Madison, Wis.
124	Manchester, N.H.
125	Mansfield, Ohio
126	McAllen-Pharr-Edinburg, Tex.
127	Memphis, Tenn.-Ark.
128	Meriden, Conn.
129	Miami, Fla.
130	Midland, Tex.
131	Milwaukee, Wis.*
132	Minneapolis-St. Paul, Minn.
133	Mobile, Ala.
134	Modesto, Calif.
135	Monroe, La.
136	Montgomery, Ala.
137	Muncie, Ind.
138	Muskegon-Muskegon Heights, Mich.
139	Nashville-Davidson, Tenn.
140	New Bedford, Mass.
141	New Britain, Conn.
142	New Haven, Conn.*
143	New London-Groton-Norwich, Conn.*
144	New Orleans, La.
145	New York, N.Y.
146	Newark, N.J.*
147	Newport News-Hampton, Va.*
148	Norfolk-Portsmouth, Va.*
149	Norwalk, Conn.*
150	Odessa, Tex.
151	Ogden, Utah
152	Oklahoma City, Okla.
153	Omaha, Nebr.-Iowa
154	Orlando, Fla.
155	Oxnard-Ventura, Calif.
156	Paterson-Clifton-Passaic, N.J.
157	Pensacola, Fla.
158	Peoria, Ill.
159	Philadelphia, Pa.-N.J.
160	Phoenix, Ariz.

Report number	Area
161	Pine Bluff, Ark.
162	Pittsburgh, Pa.
163	Pittsfield, Mass.
164	Portland, Maine*
165	Portland, Oreg.-Wash.
166	Providence-Pawtucket-Warwick, R.I.-Mass.*
167	Provo-Orem, Utah
168	Pueblo, Colo.
169	Racine, Wis.
170	Raleigh, N.C.
171	Reading, Pa.
172	Reno, Nev.
173	Richmond, Va.
174	Roanoke, Va.
175	Rochester, Minn.
176	Rochester, N.Y.
177	Rockford, Ill.
178	Sacramento, Calif.*
179	Saginaw, Mich.
180	St. Joseph, Mo.
181	St. Louis, Mo.-Ill.*
182	Salem, Oreg.
183	Salinas-Monterey, Calif.
184	Salt Lake City, Utah
185	San Angelo, Tex.
186	San Antonio, Tex.
187	San Bernardino-Riverside- Ontario, Calif.
188	San Diego, Calif.
189	San Francisco-Oakland, Calif.
190	San Jose, Calif.
191	Santa Barbara, Calif.
192	Santa Rosa, Calif.
193	Savannah, Ga.
194	Scranton, Pa.
195	Seattle-Everett, Wash.
196	Sherman-Denison, Tex.
197	Shreveport, La.
198	Sioux City, Iowa-Nebr.
199	Sioux Falls, S. Dak.
200	South Bend, Ind.

Report number	Area
201	Spokane, Wash.
202	Springfield, Ill.
203	Springfield, Mo.
204	Springfield, Ohio
205	Springfield-Chicopee-Holyoke, Mass.-Conn.*
206	Stamford, Conn.
207	Steubenville-Weirton, Ohio- W. Va.
208	Stockton, Calif.
209	Syracuse, N.Y.
210	Tacoma, Wash.
211	Tallahassee, Fla.
212	Tampa-St. Petersburg, Fla.
213	Terre Haute, Ind.
214	Texarkana, Tex.-Ark.
215	Toledo, Ohio-Mich.
216	Topeka, Kans.
217	Trenton, N.J.
218	Tucson, Ariz.
219	Tulsa, Okla.
220	Tuscaloosa, Ala.
221	Tyler, Tex.
222	Utica-Rome, N.Y.
223	Vallejo-Napa, Calif.
224	Vineland-Millville-Bridgeton, N.J.
225	Waco, Tex.
226	Washington, D.C.-Md.-Va.
227	Waterbury, Conn.*
228	Waterloo, Iowa
229	West Palm Beach, Fla.
230	Wheeling, W. Va.-Ohio
231	Wichita, Kans.
232	Wichita Falls, Tex.*
233	Wilkes-Barre-Hazleton, Pa.
234	Wilmington, Del.-N.J.-Md.
235	Wilmington, N.C.
236	Worcester, Mass.*
237	York, Pa.
238	Youngstown-Warren, Ohio*
239	Mayagüez, P.R.
240	Ponce, P.R.
241	San Juan, P.R.

INTRODUCTION

APPENDIXES

A. Area Classifications	App-1
B. Definitions and Explanations of Subject Characteristics	App-3
C. Accuracy of the Data	App-13
D. Publication and Computer Summary Tape Program	App-20

GENERAL	IV
Organization of the text	IV
Content of the tables	IV
Sample size	IV
Derived figures (percents, medians, etc.)	V
Symbols	V
Boundaries	V
DATA COLLECTION PROCEDURES	V
PROCESSING PROCEDURES	VI

GENERAL

This report presents statistics by census tract on the characteristics of the population and housing units as reported in the 1970 Census of Population and Housing. Legal provision for this census, which was conducted as of April 1, 1970, was made in the Act of Congress of August 31, 1954 (amended August 1957), which codified Title 13, United States Code. This report series contains 241 reports as listed on page II. Each report relates to a particular standard metropolitan statistical area (SMSA), and in some cases also covers certain areas adjacent to the SMSA. As stated on page App-2, there are 247 currently recognized SMSA's, including four in Puerto Rico. There are no reports in this series for six of these SMSA's because they were newly designated on the basis of the 1970 census results and census tracts had not been established for them previously.

This series of reports is one of the several series which present the information compiled from the census. For a description of the full data dissemination program see Appendix D, "Publication and Computer Summary Tape Program."

The content and procedures of the 1970 census were determined after

evaluation of the results of the 1960 census, consultation with a wide variety of users of census data, and extensive field pretesting. A number of changes were introduced in 1970 to improve the usefulness of the census results. For the characteristics shown in this report, the changes do not, however, affect to any appreciable extent the comparability of the 1970 data with those for 1960.

More detailed information on the technical and procedural matters covered in the text of this report can be obtained by writing to the Director, Bureau of the Census, Washington, D. C. 20233. Such information will also appear in later reports of the 1970 census.

Organization of the text.—The text consists of this introduction and four appendixes, which appear after the tables. Appendix A describes area classifications, defines census tracts, and traces some of the history of the development of census tract statistics. Appendix B provides definitions and explanations of the population and housing subjects appearing in the report. Appendix C presents information on sources of error in the data, sampling variability, ratio estimation, and editing procedures. Appendix D summarizes the data dissemination program of the 1970 census.

Content of the tables.—There are two numbered series of tables. Tables P-1 to P-8 present population statistics and tables H-1 to H-5 present housing statistics. Tables P-5 to P-8 and H-3 to H-5 relate to Negroes and to persons of Spanish language or surname or persons of Puerto Rican birth or parentage; they include only those tracts that have a population of 400 or more for the particular group.

The tables include data for the component counties and places of 25,000 or more in the SMSA, as well as for the tracts. All tables are arranged in identical fashion. Summations are presented first for the SMSA, followed by the component counties in alphabetical order (within State, if the SMSA crosses State lines). Shown under each county is the summation for each component place of 25,000 inhabitants or more and the balance of the county. Following these summations are the data for individual tracts (arranged in the above-mentioned geographic order) within the SMSA; and, in certain cases, for individual tracts in territory contiguous to the SMSA. When a tract crosses the boundary of a place of 25,000 inhabitants or more, statistics for the portion of the tract which lies inside the place are shown with the figure for the place; statistics for the remainder of the tract are shown as part of another place and/or under the county balance, as appropriate. The totals for each of these "split" tracts appear at the end of the table.

Sample size.—Tables P-1, H-1, and H-3 contain 100-percent data; the remaining tables contain data based on a sample of the population, with sampling rates of 20 percent or 15 percent. Figures for the total population or for some subgroups of the population (e.g., the population 5 years old and over) may differ from table to table or within the same table when the figures are tabulated from different samples. The sample size for each subject is stated in table C, Appendix C, "Accuracy of the Data." Appendix C also provides information on the sampling variability associated with the data.

Derived figures (percents, medians, etc.).—Percents, medians, and means, as well as certain rates and ratios are shown in these reports. For all types of derived figures in this report, the figure is not presented (but indicated by three dots "...") if the base is smaller than the minimum number prescribed for the sample on which the figure is based. The minimum bases are 5 (persons, families, households, or housing units) for figures derived from 100-percent tabulations, 25 for figures based on the 20-percent sample, and 33 for those based on the 15-percent sample. When a cross-tabulation of two or more characteristics covers subjects based on different samples, the minimum base for the smaller sample applies. Although figures are shown for all areas, except when the base is less than the specified minimum, the reader should exercise caution in the use and interpretation of data for very small areas or subgroups of the population; these data are especially subject to the effects of sampling variability, misreporting, and processing errors.

Percents which round to less than 0.1 are not shown but indicated as zero (i.e., "—"). The median, which is a type of average, is the middle value in a distribution, i.e., the median divides the distribution into two equal parts—one-half of the cases fall below the median and one-half of the cases exceed the median. When the median falls in the lower terminal category of an open-end distribution, the method of presentation is to show the initial value of the next category followed by a minus sign; thus, for example, if the median falls in the category "Less than \$5,000," it is shown as "\$5,000—." When the median falls in the upper terminal category of an open-end distribution, the method of

presentation is to show the initial value of the terminal category followed by a plus sign; thus, for example, if the median falls in the category "75 years and over," it is shown as "75+." The mean is the arithmetic average derived by adding the values in a particular distribution and dividing by the number of units in the distribution.

Symbols.—A dash "—" signifies zero. Three dots "..." mean not applicable, or that the base for the derived figure is too small for it to be shown, or that the data are being withheld to avoid disclosure of information for individuals. The symbol "U" means that the place is "unincorporated."

Boundaries.—Information on changes in the boundaries of tracts between 1960 and 1970 for this area appears after the Introduction. Information on boundary changes between 1960 and 1970 for certain types of areas other than tracts is given in the 1970 Population Census PC(1)-A report for each State.

DATA COLLECTION PROCEDURES

The 1970 census was conducted primarily through self-enumeration. In 1960, self-enumeration was first introduced on a nationwide scale as a substitute for the traditional census direct interview.

A census questionnaire was delivered by postal carriers to every household several days before Census Day, April 1, 1970. This questionnaire contained certain explanatory information and was accompanied by an instruction sheet; in areas with comparatively large proportions of Spanish-speaking persons, a Spanish version of the instruction sheet was also enclosed.

In the larger metropolitan areas and some adjacent counties, altogether containing about three-fifths of the population of the United States, the householder was requested to fill out and mail back the form on Census Day. Approximately 87 percent of the householders did so. The mailed-back forms were reviewed by the census enumerator (or, in some localities, a census clerk) and if the form was determined to be incomplete or inconsistent, a followup was made. The bulk of these followups were made by telephone, the rest by personal visit. For the households which did not mail back their forms, a followup was also made, in almost all cases by personal visit and in the remainder by telephone.

For the remaining two-fifths of the population, the householder was requested to fill out the form and give it to the enumerator when he called; approximately 80 percent did so. Incomplete and unfilled forms were completed by interview during the enumerator's visit.

Three types of questionnaires were used throughout the country; 80 percent of the households answered a form containing a limited number of population and housing questions and the remainder, split into 15-percent and 5-percent samples, answered forms which contained these questions as well as a number of additional questions. Some of the additional questions were the same on the 15-percent and 5-percent versions; others were different. A random procedure was used to determine which of the three forms any particular household answered.

In the metropolitan and adjacent areas, the designated type of questionnaire was sent to each household. In the remaining areas, the questionnaire

with a limited number of questions was distributed to all households, and the enumerators obtained the additional information by interview in those households designated for the 15-percent and 5-percent samples.

PROCESSING PROCEDURES

The 1970 census questionnaires were specially designed to be processed by FOSDIC (Film Optical Sensing Device for Input to Computer). For most items on the questionnaire, the information supplied by the respondent or obtained by the enumerator was indicated by marking the answers in

predesignated positions that would be "read" by FOSDIC from a microfilm copy of the questionnaire onto computer magnetic tape with no intervening manual processing. A number of the items, however, required reviewing written entries to determine the proper code. Consequently, the processing involved a manual coding and editing operation in which clerks determined the appropriate codes and marked the specified positions on the questionnaire; for example, the clerks applied a 2-digit numerical code for the country-of-birth entry. These marks, as well as those made by the respondent and enumerator, were read

by FOSDIC onto magnetic tape.

The tape containing the information from the questionnaires was processed on the Census Bureau's computers through a number of editing and tabulation steps (see Appendix C, "Accuracy of the Data"). One of the end results of this operation was a computer tape from which the tables in this report were prepared on a cathode-ray-tube phototypesetting machine at the Government Printing Office. Another end result was the summary tapes which are available for purchase, as described in Appendix D, "Publication and Computer Summary Tape Program."

TRACT COMPOSITION OF CENTRAL BUSINESS DISTRICT

1970 Tracts

Birmingham	27
	28.01

Table A. Tract Comparability: 1970 to 1960

[Only part of the area was tracted in 1960. The tables list only those census tracts for which the boundaries or identification changed between 1960 and 1970.]

1970 tract	1960 tract	1970 tract	1960 tract
JEFFERSON COUNTY, ALA.		JEFFERSON COUNTY, ALA.—Continued	
0011	0011 C-0124 PART	0112.02. . . .	C-0112 PART C-0113 PART
0021	0021 C-0126 PART	0113	C-0113 PART C-0114
0023.01. . . .	0023-A	0114	C-0114
0023.02. . . .	0023-B PART	0115	C-0115
0028.01. . . .	0028-A	0116.01. . . .	C-0116 PART
0028.02. . . .	0028-B	0116.02. . . .	C-0116 PART
0048.01. . . .	0048 PART	0117.01. . . .	C-0117 PART
0048.02. . . .	0048 PART	0117.02. . . .	C-0117 PART
0049.01. . . .	A-0107 PART 0049 PART	0118	C-0118 PART
		0119	C-0119 C-0112 PART
0049.02. . . .	0049 PART	0120	C-0120
0053	0053 C-0126 PART		0055 PART
0055	0055 PART	0121.01. . . .	C-0121 PART
0056	0056 PART C-0128 PART	0121.02. . . .	C-0121 PART
0059.01. . . .	0059 PART C-0111 PART C-0118 PART C-0126 PART	0122	C-0122
0059.02. . . .	0059 PART C-0118 PART	0123.01. . . .	C-0123 PART C-0139 PART
0100	A-0100 C-0139 PART	0123.02. . . .	C-0123 PART
0101	A-0101 PART	0124	C-0124 PART
0102	A-0102 PART C-0141 PART	0125	C-0125
0103	A-0103	0126	C-0126 PART
0104	A-0104 PART C-0141 PART C-0143 PART	0127.01. . . .	C-0127 PART
0105	A-0105 C-0131 PART	0127.02. . . .	C-0127 PART
0106	A-0106 C-0134 PART	0128.01. . . .	C-0128 PART
0107	A-0107 PART C-0129 PART C-0130 PART C-0144 PART	0128.02. . . .	C-0128 PART
0108	A-0108 0023-B PART C-0128 PART C-0129 PART	0129	C-0129 PART
0109	A-0109	0130	C-0130 PART
0110	C-0110	0131	C-0131 PART
0111.01. . . .	C-0111 PART	0132	C-0132 PART
0111.02. . . .	C-0111 PART	0133	C-0133 PART
0112.01. . . .	C-0112 PART	0134	C-0132 PART C-0134 PART
		0135	C-0135
		0136	C-0136
		0137	C-0137 C-0133 PART
		0138	C-0138 A-0102 PART
		0139	C-0139 PART
		0140	C-0140
		0141.01. . . .	A-0104 PART C-0141 PART
		0141.02. . . .	C-0141 PART
		0142.01. . . .	C-0142 PART
		0142.02. . . .	C-0142 PART
		0143	A-0101 PART C-0143 PART
		0144	C-0144 PART

Table B. Tract Comparability: 1960 to 1970

[Only part of the area was tracted in 1960. The tables list only those census tracts for which the boundaries or identification changed between 1960 and 1970.]

1960 tract	1970 tract	1960 tract	1970 tract
JEFFERSON COUNTY, ALA.		JEFFERSON COUNTY, ALA.—Continued	
0011	0011 PART	C-0119	0119 PART
0021	0021 PART	C-0120	0120 PART
0023-A	0023.01	C-0121	0121.01
0023-B	0023.02		0121.02
	0108 PART	C-0122	0122
0028-A	0028.01	C-0123	0123.02
0028-B	0028.02		0123.01 PART
0048	0048.01	C-0124	0124
	0048.02 PART		0011 PART
0049	0049.01	C-0125	0125
	0049.02	C-0126	0126
0053	0053 PART		0021 PART
0055	0055		0053 PART
	0120 PART	C-0127	0059.01 PART
0056	0056 PART		0127.01
0059	0059.01 PART	C-0128	0127.02
	0059.02 PART		0128.01
A-0100	0100 PART		0128.02
A-0101	0101		0056 PART
	0143 PART	C-0129	0108 PART
A-0102	0102 PART		0129
	0138 PART		0107 PART
A-0103	0103	C-0130	0108 PART
A-0104	0104 PART		0130
	0141.01 PART	C-0131	0107 PART
A-0105	0105 PART		0131
A-0106	0106 PART	C-0132	0105 PART
A-0107	0048.02 PART		0132
	0107 PART	C-0133	0134 PART
A-0108	0108 PART		0133
A-0109	0109	C-0134	0137 PART
C-0110	0110		0106 PART
C-0111	0111.01		0134 PART
	0111.02	C-0135	0135
	0059.01 PART	C-0136	0136
C-0112	0112.01	C-0137	0137 PART
	0112.02 PART	C-0138	0138 PART
	0119 PART	C-0139	0139
C-0113	0113		0100 PART
	0112.02 PART		0123.01 PART
C-0114	0114	C-0140	0140
C-0115	0115	C-0141	0141.02
C-0116	0116.01		0102 PART
	0116.02		0104 PART
C-0117	0117.01	C-0142	0141.01 PART
	0117.02		0142.01
C-0118	0118	C-0143	0142.02
	0059.01 PART		0104 PART
	0059.02 PART	C-0144	0143 PART
			0144
			0107 PART

CORRECTION NOTE

The data presented for certain tracts in this SMSA contain errors which were found too late for retabulation to be feasible. The corrected 100-percent population and housing unit counts listed below for the affected tracts (and other areas) are not reflected in the tables of this report. County and place corrections shown here are consistent with (or revise) the information provided in the PC(1)-A and B, and HC(1)-A, State reports.

	<u>Population</u>		<u>Housing units</u>	
	As shown		As shown	
	in table		in table	
	<u>P-1</u>	<u>Corrected</u>	<u>H-1</u>	<u>Corrected</u>
Jefferson County:				
Place:				
Bessemer.....	33,428	33,663	10,890	10,962
Tracts:				
100.....	7,095	7,105	2,303	2,306
107.....	21,300	21,192	7,801	7,766
126.....	4,502	4,610	1,526	1,561
132.....	3,501	3,442	1,113	1,088
139.....	7,406	7,396	2,120	2,117
144.....	16,049	16,108	4,665	4,690

Because of apparent processing errors, mean family income, mean income for families and unrelated individuals, and "mean other income" for families reporting other income are not shown in table P-4 for the following tracts: 0103, 0001, 0117.02, 0127.02, and 0141.01 (pages P-45 and P-48). Similarly, in table P-4, mean income for unrelated individuals is not shown for tract 0141.01 (pages P-45 and P-48).

Table P-7. **General and Social Characteristics of Persons of Spanish Language: 1970**

[Data based on sample, see text. For minimum base for derived figures (percent, median, etc.) and meaning of symbols, see text.]

Census Tracts With 400 or More Persons of Spanish Language	Jefferson County					Shelby County	Walker County
	Total SMSA	Total	Bessemer	Birmingham	Balance		
AGE BY SEX							
Male, all ages	1 417	1 370	37	593	740	40	7
Under 5 years	191	185	—	93	92	6	—
3 and 4 years	96	96	—	51	45	—	—
5 to 9 years	225	225	6	67	152	—	—
5 years	30	30	—	12	18	—	—
6 years	49	49	—	10	39	—	—
10 to 14 years	231	224	12	66	146	7	—
14 years	53	53	—	9	44	—	—
15 to 19 years	130	130	—	100	30	—	—
15 years	6	6	—	—	6	—	—
16 years	24	24	—	14	10	—	—
17 years	42	42	—	28	14	—	—
18 years	22	22	—	22	—	—	—
19 years	36	36	—	36	—	—	—
20 to 24 years	102	96	—	67	29	6	—
20 years	28	22	—	22	—	6	—
21 years	20	20	—	13	7	—	—
25 to 34 years	159	143	—	61	82	16	—
35 to 44 years	146	139	14	49	76	—	7
45 to 54 years	154	154	—	59	95	—	—
55 to 59 years	30	30	—	12	18	—	—
60 to 64 years	24	24	5	19	—	—	—
65 to 74 years	12	7	—	—	7	5	—
75 years and over	13	13	—	—	13	—	—
Female, all ages	1 382	1 294	25	606	663	60	28
Under 5 years	142	114	—	51	63	12	16
3 and 4 years	47	47	—	21	26	—	—
5 to 9 years	148	148	—	54	94	—	—
5 years	14	14	—	—	14	—	—
6 years	37	37	—	21	16	—	—
10 to 14 years	117	117	—	75	42	—	—
14 years	19	19	—	6	13	—	—
15 to 19 years	276	262	12	138	112	9	5
15 years	58	58	5	29	24	—	—
16 years	53	53	—	25	28	—	—
17 years	48	48	—	31	17	—	—
18 years	52	48	—	24	24	4	—
19 years	65	55	7	29	19	5	5
20 to 24 years	94	84	—	51	33	10	—
20 years	35	35	—	26	9	—	—
21 years	24	18	—	12	6	6	—
25 to 34 years	197	181	—	77	104	16	—
35 to 44 years	166	166	7	67	92	—	7
45 to 54 years	106	99	—	34	65	—	—
55 to 59 years	29	29	—	13	16	—	—
60 to 64 years	25	18	—	18	—	7	—
65 to 74 years	49	43	6	15	22	6	—
75 years and over	33	33	—	13	20	—	—
RELATIONSHIP TO HEAD OF HOUSEHOLD							
All persons	2 799	2 664	62	1 199	1 403	100	35
In households	2 728	2 405	62	1 140	1 403	88	35
Head of household	646	603	19	275	309	29	14
Head of family	564	534	11	226	297	23	7
Primary individual	82	69	—	49	12	6	7
Wife of head	544	523	8	224	286	16	5
Other relative of head	1 516	1 457	30	635	792	43	16
Not related to head	22	22	—	6	16	—	—
In group quarters	71	59	—	—	—	12	—
Persons per household	4.22	4.32	...	4.15	4.54	...	...
TYPE OF HOUSEHOLD							
All households	646	603	19	275	309	29	14
Male primary individual	8	8	8	—	—	—	—
Female primary individual	74	61	—	49	12	6	7
Husband-wife households	539	516	11	219	286	16	7
Households with other male head	5	5	—	—	5	—	—
Households with female head	20	13	—	7	6	7	—
SCHOOL ENROLLMENT							
Persons, 14 to 21 years old	449	423	7	282	134	21	5
Not attending school	177	172	—	119	53	—	5
Not high school graduates	67	62	—	46	16	—	5
Percent of total	14.9	14.7	—	16.3	11.9	—	...
YEARS OF SCHOOL COMPLETED							
Persons, 25 years old and over	1 143	1 079	32	437	610	50	14
No school years completed	20	20	—	12	8	—	—
Elementary: 1 to 4 years	29	29	—	22	7	—	—
5 to 7 years	79	79	6	41	32	—	—
8 years	34	34	5	—	29	—	—
High school: 1 to 3 years	138	133	6	79	48	5	—
4 years	424	394	—	161	233	16	14
College: 1 to 3 years	116	116	—	61	55	—	—
4 years or more	303	274	15	61	198	29	—
Median school years completed	12.6	12.6	...	12.4	12.8	17+	...
Percent high school graduates	73.8	72.7	...	64.8	79.7	90.0	...
RESIDENCE IN 1965							
Persons, 5 years old and over, 1970 ¹	2 466	2 365	62	1 055	1 248	82	19
Some house as in 1970	898	837	47	331	459	61	—
Different house:							
In central city of this SMSA	401	401	—	247	154	—	—
In other part of this SMSA	331	331	8	91	232	—	—
Outside this SMSA	396	356	—	158	198	21	19
North and West	142	132	—	56	76	10	—
South	254	224	—	102	122	11	19
Abroad	156	156	—	16	140	—	—

¹Includes "Moved, 1965 residence not reported."

Table P-8. **Economic Characteristics of Persons of Spanish Language: 1970—Continued**

[Data based on sample, see text. For minimum base for derived figures (percent, median, etc.) and meaning of symbols, see text]

Census Tracts With 400 or More Persons of Spanish Language	Jefferson County				Shelby County	Walker County
	Total SMSA	Total	Bessemer	Birmingham			Balance
EMPLOYMENT STATUS AND OCCUPATION						
Male, 16 years old and over	764	730	19	367	344	27
Labor force	617	589	14	267	308	21
Civilian labor force	605	577	14	260	303	21
Employed	572	544	14	235	295	21
Unemployed	33	33	—	25	8	—
Not in labor force	147	141	5	100	36	6
Female, 16 years old and over	917	857	20	397	440	48
Labor force	355	316	—	172	144	27
Civilian labor force	355	316	—	172	144	27
Employed	337	298	—	163	135	27
Unemployed	18	18	—	9	9	—
Not in labor force	562	541	20	225	296	21
Married women in labor force, husband present	234	213	—	120	93	16
With own children under 6 years	52	39	—	25	14	8
Total employed, 16 years old and over	909	842	14	398	430	48
Professional, technical, and kindred workers	289	259	8	101	150	23
Managers and administrators, except farm	64	64	—	31	33	—
Sales workers	97	93	—	38	55	4
Clerical and kindred workers	137	129	6	34	89	8
Craftsmen, foremen, and kindred workers	87	75	—	30	45	5
Operatives, except transport	47	47	—	33	14	—
Transport equipment operatives	36	36	—	30	6	—
Laborers, except farm	28	20	—	15	5	8
Farm workers	6	6	—	6	—	—
Service workers, except private household	107	102	—	80	22	—
Private household workers	11	11	—	—	11	—
Female employed, 16 years old and over	337	298	—	163	135	27
Professional, technical, and kindred workers	107	85	—	47	38	15
Managers and administrators, except farm	25	25	—	12	13	—
Sales workers	34	30	—	24	6	4
Clerical and kindred workers	93	85	—	24	61	8
Operatives, including transport	9	9	—	9	—	—
Other blue-collar workers	—	—	—	—	—	—
Farm workers	—	—	—	—	—	—
Service workers, except private household	58	53	—	47	6	—
Private household workers	11	11	—	—	11	—
FAMILY INCOME IN 1969						
All families	564	534	11	226	297	23
Less than \$1,000	21	21	—	13	8	—
\$1,000 to \$1,999	11	11	5	6	—	—
\$2,000 to \$2,999	7	7	—	7	—	—
\$3,000 to \$3,999	5	5	—	—	5	—
\$4,000 to \$4,999	29	29	—	8	21	—
\$5,000 to \$5,999	38	38	—	22	16	—
\$6,000 to \$6,999	32	32	—	22	10	—
\$7,000 to \$7,999	53	53	—	41	12	—
\$8,000 to \$8,999	8	8	—	8	—	—
\$9,000 to \$9,999	52	45	—	8	37	7
\$10,000 or more	308	285	6	91	188	23
Median income: Families	\$10 852	\$10 590	...	\$7 854	\$12 414	...
Families and unrelated individuals	\$9 231	\$9 211	...	\$6 879	\$11 966	\$12 326
RATIO OF FAMILY INCOME TO POVERTY LEVEL¹						
Percent of families with incomes:						
Less than .50 of poverty level	4.6	4.9	...	5.8	2.7	—
.50 to .74	2.0	2.1	...	2.7	1.7	—
.75 to .99	1.2	1.3	...	3.1	—	—
1.00 to 1.24	4.1	4.3	...	—	7.7	—
1.25 to 1.49	—	—	...	—	—	—
1.50 to 1.99	14.2	15.0	...	26.1	7.1	—
2.00 or more	73.9	72.5	...	62.4	80.8	...
INCOME BELOW POVERTY LEVEL¹						
Families	44	44	5	26	13	—
Percent of all families	7.8	8.2	...	11.5	4.4	—
Mean family income	\$984	\$984	...	...	...	...
Mean income deficit	\$2 869	\$2 869	...	...	...	...
Percent receiving public assistance income	—	—	—	—	—	—
Mean size of family	4.27	4.27	...	...	...	...
With related children under 18 years	30	30	5	12	13	—
Mean number of related children under 18 years	...	...	...	...	...	...
With related children under 6 years	25	25	—	12	13	—
Mean number of related children under 6 years	...	...	...	...	...	...
Families with female head	—	—	—	—	—	—
With related children under 18 years	—	—	—	—	—	—
Mean number of related children under 18 years	—	—	—	—	—	—
With related children under 6 years	—	—	—	—	—	—
Percent in labor force	—	—	—	—	—	—
Mean number of related children under 6 years	—	—	—	—	—	—
Family heads	44	44	5	26	13	—
Percent 65 years and over	—	—	—	—	—	—
Civilian male heads under 65 years	44	44	5	26	13	—
Percent in labor force	88.6	88.6	...	...	...	...
Unrelated individuals	64	57	—	46	11	7
Percent of all unrelated individuals	59.3	60.0	...	70.8	...	...
Mean income	\$713	\$708	...	\$877	...	...
Mean income deficit	\$1 119	\$1 124	...	\$949	...	...
Percent receiving public assistance income	17.2	19.3	...	23.9	...	...
Percent 65 years and over	35.9	40.4	15	37.0	...	7
Persons	252	245	24.2	128	102	20.0
Percent of all persons	9.2	9.4	...	11.1	7.3	...
Percent receiving Social Security income	8.3	8.6	...	7.8	...	...
Percent 65 years and over	16.3	16.7	...	17.2	12.7	...
Percent receiving Social Security income	29.3	29.3	...	—	...	...
Related children under 18 years	205	205	5	125	75	—
Percent living with both parents	57.6	57.6	—	60.8	56.0	—
Households	81	74	5	50	19	7
Percent of all households	13.3	12.9	...	19.2	6.4	...
Owner occupied	19	19	—	11	8	—
Mean value of unit	—	—	—	—	—	—
Renter occupied	62	55	5	39	11	7
Mean gross rent	\$56	\$56	...	\$56	...	...
Percent lacking some or all plumbing facilities	12.3	13.5	—	8.0	...	...

¹Excludes inmates of institutions, members of the Armed Forces living in barracks, college students in dormitories, and unrelated individuals under 14 years.

Table H-3. **Occupancy, Utilization, and Financial Characteristics of Housing Units With Negro Head of Household: 1970—Continued**

[For minimum base for derived figures (percent, median, etc.) and meaning of symbols, see text]

Census Tracts With 400 or More Negro Population

	Shelby County—Con.			Walker County				Totals for split tracts in Jefferson County					
	Tract 0305	Tract 0306	Tract 0307	Tract 0201	Tract 0204	Tract 0214	Tract 0216	Tract 0104	Tract 0125	Tract 0138	Tract 0139	Tract 0141,01	Tract 0143
All occupied housing units	137	364	181	277	272	170	113	960	799	967	763	376	677
TENURE AND PLUMBING													
Owner occupied	84	223	104	186	159	132	58	586	603	738	622	301	516
With all plumbing facilities	23	119	28	114	116	78	4	375	452	574	500	212	340
Renter occupied	53	141	77	91	113	38	55	374	196	229	141	75	161
With all plumbing facilities	15	68	14	48	16	8	—	125	88	61	48	11	66
ROOMS													
1 room	1	1	2	—	—	—	—	2	1	—	1	1	—
2 rooms	5	17	12	1	5	6	1	32	27	13	18	7	27
3 and 4 rooms	54	166	91	141	127	82	99	511	394	328	208	119	300
5 and 6 rooms	66	136	68	124	111	69	10	351	308	521	399	182	308
7 rooms or more	11	44	8	11	29	13	3	64	69	105	137	67	42
Median	4.8	4.5	4.3	4.5	4.6	4.5	4.0	4.3	4.4	5.1	5.5	5.3	4.6
PERSONS													
1 person	15	50	41	47	68	50	31	176	133	142	93	42	98
2 and 3 persons	54	141	50	110	125	63	27	382	331	358	301	142	258
4 and 5 persons	23	78	39	64	42	28	22	203	143	223	185	94	151
6 persons or more	45	95	51	56	37	29	33	199	192	244	184	98	170
Median	3.5	3.3	3.5	3.0	2.3	2.6	3.2	2.9	3.0	3.4	3.4	3.6	3.3
Units with roomers, boarders, or lodgers	5	2	4	10	13	1	1	23	15	33	20	11	15
PERSONS PER ROOM													
1.00 or less	88	259	125	218	234	137	73	726	604	724	601	282	480
1.01 to 1.50	28	50	26	35	21	15	18	115	107	135	99	61	108
1.51 or more	21	55	30	24	17	18	22	119	88	108	63	33	89
Units with all plumbing facilities—1.01 or more	7	25	10	39	12	11	1	99	121	134	91	44	114
VALUE													
Specified owner occupied units ¹	70	185	82	182	157	127	54	569	562	714	588	273	483
Less than \$5,000	31	81	41	54	60	68	52	115	212	95	107	53	152
\$5,000 to \$9,999	30	60	31	79	68	43	2	285	274	341	219	99	210
\$10,000 to \$14,999	7	27	4	30	15	9	—	118	51	179	132	44	80
\$15,000 to \$19,999	2	2	3	7	6	3	—	32	11	76	90	35	24
\$20,000 to \$34,999	—	7	3	9	7	2	—	15	7	22	37	33	12
\$35,000 or more	—	8	—	3	1	2	—	4	7	1	3	9	5
Median	\$5 500	\$5 700	\$5 000	\$6 500	\$6 000	\$5000—	\$5000—	\$7 700	\$5 900	\$8 800	\$9 200	\$9 100	\$6 800
CONTRACT RENT													
Specified renter occupied units ²	39	124	56	83	105	36	54	353	174	208	118	61	137
Median	\$30—	\$30	\$30—	\$30—	\$30—	\$30—	\$30—	\$30—	\$30	\$30—	\$30	\$30—	\$30—

¹Limited to one-family homes on less than 10 acres and no business on property.

²Excludes one-family homes on 10 acres or more and all "no cash rent" units.

Table H-4. **Structural, Equipment, and Financial Characteristics of Housing Units With Negro Head of Household: 1970—Continued**

(Data based on sample, see text. For minimum base for derived figures (percent, median, etc.) and meaning of symbols, see text)

Census Tracts With 400 or More Negro Population

	Shelby County—Con.			Walker County				Totals for split tracts in Jefferson County					
	Tract 0305	Tract 0306	Tract 0307	Tract 0201	Tract 0204	Tract 0214	Tract 0216	Tract 0104	Tract 0125	Tract 0138	Tract 0139	Tract 0141.01	Tract 0143
All occupied housing units	153	356	190	271	278	172	111	957	778	960	740	383	666
UNITS IN STRUCTURE													
1 (includes mobile home or trailer)	132	331	173	257	267	165	107	872	748	924	729	361	612
2 to 4	21	25	17	14	11	7	4	52	30	36	5	22	54
5 or more	—	—	—	—	—	—	—	33	—	—	6	—	—
YEAR STRUCTURE BUILT													
1960 to March 1970	37	99	38	27	—	14	13	78	21	197	153	129	131
1950 to 1959	20	43	25	56	39	18	—	216	158	325	197	68	166
1949 or earlier	96	214	127	188	239	140	98	663	599	438	390	186	369
SELECTED EQUIPMENT													
With air conditioning	—	31	26	27	30	21	—	182	43	238	122	52	61
With more than 1 bathroom	—	—	—	16	—	5	—	17	24	40	37	53	30
With central or built-in heating system	24	177	19	65	41	—	9	173	91	417	254	102	152
With public water supply	52	276	94	254	289	160	50	942	768	934	723	267	631
With public sewer	9	72	8	135	238	—	5	519	58	178	126	7	43
With automobile(s) available	89	201	86	122	156	71	29	519	486	635	517	281	436
1	72	96	52	69	133	44	29	344	353	367	279	155	316
2 or more	17	105	34	53	23	27	—	175	133	268	238	126	120
YEAR MOVED INTO UNIT													
1968 to March 1970	27	45	55	76	70	22	12	178	117	128	124	59	120
1960 to 1967	50	150	50	93	71	40	28	273	150	291	249	167	173
1959 or earlier	70	174	91	91	148	108	73	511	507	534	371	148	365
GROSS RENT													
Specified renter occupied units ¹	62	134	70	96	108	41	52	371	194	222	122	94	139
Less than \$40	22	55	35	78	24	41	7	70	47	82	21	29	32
\$40 to \$59	19	54	14	4	56	—	33	160	60	67	45	45	83
\$60 to \$79	4	25	—	9	15	—	12	96	54	25	32	6	7
\$80 to \$99	5	—	8	—	9	—	—	28	16	31	4	—	—
\$100 to \$149	—	—	—	—	—	—	—	10	—	7	4	—	—
\$150 to \$199	—	—	—	—	—	—	—	—	5	—	—	—	—
\$200 or more	—	—	—	—	—	—	—	7	—	—	—	—	—
No cash rent	12	—	13	5	4	—	—	—	12	10	16	14	17
Median	\$42	\$43	\$35	\$34	\$48	\$30—	\$47	\$54	\$49	\$46	\$56	\$46	\$44
GROSS RENT AS PERCENTAGE OF INCOME BY INCOME													
Less than \$10,000	62	126	62	96	108	41	52	366	182	210	112	94	132
25 percent or more	11	39	12	51	46	35	40	188	74	65	69	34	34
35 percent or more	5	26	12	19	28	6	40	139	63	50	46	22	24
Not computed	12	—	9	5	4	—	—	11	12	22	20	14	31
Median	16.5	17.2	10.0—	26.7	22.5	30.0	35.0+	27.1	21.3	20.2	35.0	14.0	14.5

¹Excludes one-family homes on 10 acres or more.

Table H-5. Characteristics of Housing Units With Household Head of Spanish Language: 1970

[Data based on sample, see text. For minimum base for derived figures (percent, median, etc.) and meaning of symbols, see text]

Census Tracts With 400 or More Persons of Spanish Language	Jefferson County					Shelby County	Walker County
	Total SMSA	Total	Bessemer	Birmingham	Balance		
All occupied housing units.....	651	606	18	271	317	31	14
TENURE AND PLUMBING							
Owner occupied.....	320	297	6	97	194	15	8
With all plumbing facilities.....	313	290	...	97	187	...	...
Renter occupied.....	331	309	12	174	123	16	6
With all plumbing facilities.....	319	297	...	169	116	...	...
ROOMS							
1 room.....	23	23	...	23	-	...	...
2 rooms.....	16	16	...	9	7	...	...
3 and 4 rooms.....	164	150	...	82	63	...	...
5 and 6 rooms.....	278	247	...	83	151	...	...
7 rooms or more.....	170	170	...	74	96	...	...
UNITS IN STRUCTURE							
1 (includes mobile home or trailer).....	502	462	...	196	253	...	...
2 to 4.....	61	56	...	32	19	...	...
5 or more.....	88	88	...	43	45	...	...
YEAR STRUCTURE BUILT							
1960 to March 1970.....	246	238	...	46	192	...	...
1950 to 1959.....	122	122	...	46	76	...	...
1949 or earlier.....	283	246	...	179	49	...	...
PERSONS							
1 person.....	77	66	...	46	13	...	...
2 and 3 persons.....	296	270	...	107	158	...	...
4 and 5 persons.....	186	178	...	84	88	...	...
6 persons or more.....	92	92	...	34	58	...	...
Median.....	3.2	3.3	...	3.1	3.4	...	...
Units with roomers, boarders, or lodgers.....	-	-	...	-	-	...	...
PERSONS PER ROOM							
1.00 or less.....	556	511	...	224	269	...	...
1.01 to 1.50.....	73	73	...	32	41	...	...
1.51 or more.....	22	22	...	15	7	...	...
Units with all plumbing facilities—1.01 or more.....	88	88	...	47	41	...	...
YEAR MOVED INTO UNIT							
1968 to March 1970.....	317	303	...	149	147	...	...
1960 to 1967.....	219	201	...	88	113	...	...
1959 or earlier.....	115	102	...	34	57	...	...
SELECTED EQUIPMENT							
With air conditioning.....	458	419	...	150	263	...	...
With more than 1 bathroom.....	244	231	...	48	183	...	...
With central or built-in heating system.....	539	508	...	200	295	...	...
With public water supply.....	622	584	...	265	301	...	...
With public sewer.....	464	434	...	253	169	...	...
With automobile(s) available.....	574	536	...	213	310	...	...
1.....	292	262	...	112	137	...	...
2 or more.....	282	274	...	101	173	...	...
VALUE							
Specified owner occupied units ¹	291	275	...	91	178	...	...
Less than \$5,000.....	13	13	...	13	-	...	...
\$5,000 to \$9,999.....	20	20	...	13	7	...	...
\$10,000 to \$14,999.....	74	58	...	23	35	...	...
\$15,000 to \$19,999.....	59	59	...	18	35	...	...
\$20,000 to \$34,999.....	87	87	...	19	68	...	...
\$35,000 or more.....	38	38	...	5	33	...	...
Median.....	\$19 000	\$19 400	...	\$13 300	\$22 400	...	...
GROSS RENT							
Specified renter occupied units ²	325	303	...	168	123	...	...
Less than \$40.....	5	5	...	5	-	...	...
\$40 to \$59.....	42	42	...	33	9	...	...
\$60 to \$79.....	33	27	...	22	-	...	...
\$80 to \$99.....	87	71	...	64	-	...	...
\$100 to \$149.....	62	62	...	23	39	...	...
\$150 to \$199.....	63	63	...	21	42	...	...
\$200 or more.....	11	11	...	-	11	...	...
No cash rent.....	22	22	...	-	22	...	...
Median.....	\$96	\$98	...	\$86	\$153	...	...
CONTRACT RENT							
Specified renter occupied units ³	325	303	...	168	123	...	...
Median.....	\$74	\$75	...	\$65	\$129	...	...
GROSS RENT AS PERCENTAGE OF INCOME BY INCOME							
Less than \$10,000.....	250	239	...	139	88	...	...
25 percent or more.....	95	89	...	57	27	...	...
35 percent or more.....	61	55	...	43	7	...	...
Not computed.....	15	15	...	-	15	...	...
Median.....	22.4	22.4	...	19.3	23.4	...	...

¹Limited to one-family homes on less than 10 acres and no business on property.

²Excludes one-family homes on 10 acres or more.

³Excludes one-family homes on 10 acres or more and all "no cash rent" units.

Appendix A.—AREA CLASSIFICATIONS

CENSUS TRACTS	App-1
Definition of census tract	App-1
Historical background	App-1
Description of tracted area	App-1
Comparability from census to census	App-1
STANDARD METROPOLITAN STATISTICAL AREAS	App-2

CENSUS TRACTS

Definition of census tract.—Census tracts are small areas into which large cities and adjacent areas have been divided for statistical purposes. Tract boundaries were established cooperatively by a local committee and the Bureau of the Census. Tracts were generally designed to be relatively uniform with respect to population characteristics, economic status, and living conditions. The average tract has about 4,000 residents. Tract boundaries are established with the intention of being maintained over a long time so that comparisons may be made from census to census.

In the decennial censuses, the Bureau of the Census tabulates population and housing information for each census tract. The practice of local agencies to tabulate locally collected data by tracts has increased the value of census tract data in many areas.

Tracts are generally numbered in a consecutive series, with separate series for the central city and for each county. Insofar as possible, the numbers are consecutive within each city, community, township, and the like. In these tables, tracts which contain no population and no housing units are not listed. Tracts populated only by crews of vessels are identified by the tract number suffix "99."

Historical background.—The concept of census tracts was originated by the late Dr. Walter Laidlaw in New York City in 1906. He was convinced of the need for data for homogeneous subdivisions of cities as a basis for studying neighborhoods smaller than boroughs or wards. At his request, the Bureau of the Census tabulated census tract data from the 1910 census for New York and seven other cities with a population of over 500,000. Tract data were again tabulated for the same 8 cities in 1920, and in 1930 this number was increased to 18. In 1940, tract data were tabulated for 60 cities, some with adjacent tracted areas; and, beginning in 1940, housing data were added to the population data in the tract reports. In 1950, final reports were published for 64 tracted areas, many of which included statistics for two or more large cities. By 1960, the program had expanded to include reports for 180 tracted areas (of which 3 were in Puerto Rico).

Tract statistics from the 1970 census are published for 241 areas, 238 in the United States and 3 in the Commonwealth of Puerto Rico. All of these tracted areas are standard metropolitan statistical areas (SMSA's). The goal of extending the census tract program to all SMSA's was achieved in the 1970 census except for six areas that were designated as SMSA's on the basis of the 1970 census count and had not been tracted.

Much of the credit for the growing interest in tract data belongs to the late Howard Whipple Green of Cleveland. He aroused the interest of research workers in numerous cities in the potential usefulness of tract statistics for the analysis of sociological, marketing, and administrative

problems. In his capacity as Chairman of the Committee on Census Enumeration Areas of the American Statistical Association for 25 years, he accepted the responsibility for appointing a Census Tract Key Person in each area where tracts were established, for providing guidance on delineating and maintaining census tracts, and for maintaining a census tract library. These duties were assumed by the Bureau of the Census in 1955. However, the Census Bureau no longer appoints Census Tract Key Persons. They are selected by the local census tract committees.

For a further discussion of census tract data and their uses, see U.S. Bureau of the Census, *Census Tract Manual*, Fifth Edition, 1966, Government Printing Office, Washington, D.C. 20402.

Description of tracted area.—The map included in this report identifies the boundaries of the area for which the tract statistics are presented. The map also identifies the location and number of each tract and, when appropriate, the limits of cities, townships, counties, or other subdivisions of the tracted area. Boundaries of the tracted area generally constitute a standard metropolitan statistical area (SMSA). A few, however, include the SMSA plus an adjoining area outside it. These are designated as including the adjacent area, and the map covers the tracts in the adjacent area as well as those in the SMSA itself.

Comparability from census to census.—One of the principles followed in relation to census tracts is to preserve comparability from census to census. Keeping tract boundaries unchanged makes possible the study of changes

in social and economic characteristics of neighborhoods. There are, nonetheless, several situations where boundaries of individual tracts are changed. For example, it is sometimes necessary to change the boundaries of tracts to add small areas annexed to a city. Similarly, changes in tract boundaries occur when territory is detached from a city or separately incorporated. Changes may also occur in physical features that are used as tract boundaries, such as street or highway relocations. The census tract limits are changed to conform with the revised feature or to follow another nearby visible feature. Census tracts with very large increases in population are subdivided into two or more smaller tracts. On the other hand, a re-examination of the existing tract boundaries may result in modifications of boundaries to provide larger or more homogeneous units. Tables A and B, showing the comparability of tracts between 1960 and 1970, appear at the end of the Introduction.

STANDARD METROPOLITAN STATISTICAL AREAS

The Bureau of the Census recognizes 243 standard metropolitan statistical areas (SMSA's) in the United States and 4 in Puerto Rico, making a total of 247 in the 1970 census. These include the 231 SMSA's as defined and named in the Bureau of the Budget publication, **Standard Metropolitan Statistical Areas: 1967**, U.S. Government Printing Office, Washington, D.C. 20402. Since 1967, 16 SMSA's have been added, of which two were defined in January 1968 and an additional 14 were defined in February 1971 on the basis of the results of the 1970 census. Changes in SMSA boundaries or titles made after February 1971 are not recognized in this series of reports. SMSA's are defined by the Office of Management and Budget (formerly Bureau of the Budget).

Except in the New England States, a standard metropolitan statistical area

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 socially and economically integrated with the central city. In the New England States, SMSA's consist of towns and cities instead of counties. In recent years, four cities (High Point, N.C., Macon, Ga., Oklahoma City, Okla., and Sioux Falls, S. Dak.) have annexed territory which lies outside the boundaries of the SMSA. The figures shown in the tables for these cities exclude the portions which lie outside the SMSA. Each SMSA must include at least one central city, and the complete title of an SMSA identifies the central city or cities. For a detailed description of the criteria used in defining SMSA's, see the Bureau of the Budget publication cited above.

Appendix B.—DEFINITIONS AND EXPLANATIONS OF SUBJECT CHARACTERISTICS

GENERAL	App-3
POPULATION CHARACTERISTICS	
Age	App-3
Race	App-3
Nativity, parentage, and country of origin	App-3
Spanish heritage	App-4
Spanish language	App-4
Spanish surname	App-4
Puerto Rican birth or parentage	App-4
Spanish mother tongue	App-4
Household	App-4
Relationship to head of household	App-4
Group quarters	App-5
Inmate of institution	App-5
Family	App-5
Own children and related children	App-5
Unrelated individuals	App-5
Marital status	App-5
Children ever born	App-6
School enrollment	App-6
Years of school completed	App-6
Residence in 1965	App-6
Reference week	App-6
Employment status	App-6
Place of work	App-7
Means of transportation to work	App-7
Occupation, industry, and class of worker	App-7
Income in 1969	App-7
Poverty status in 1969	App-8
HOUSING CHARACTERISTICS	
Housing units and group quarters	App-9
Year-round housing units	App-9
Occupied housing units	App-9
Vacant housing units	App-9
Tenure	App-10
Persons	App-10
Year moved into unit	App-10
Complete kitchen facilities	App-10
Access	App-10
Rooms	App-10
Persons per room	App-10
Year structure built	App-10

Units in structure	App-10
Basement	App-11
Plumbing facilities	App-11
Selected equipment	App-11
Heating equipment	App-11
Automobiles available	App-11
Value	App-11
Mean value	App-11
Contract rent	App-12
Gross rent	App-12
Mean gross rent	App-12
Gross rent as percentage of income	App-12

GENERAL

Facsimiles of the census questions and more complete definitions of the subject characteristics may be found in the 1970 Population Census PC(1)-C reports for population items and in the 1970 Housing Census HC(1)-B reports for housing items.

Certain characteristics defined here appear in both the population and the housing tables. Definitions for such characteristics are presented only once, in the section "Population Characteristics" or in the section "Housing Characteristics," depending on the nature of the subject (except for "group quarters," which appears in both sections).

POPULATION CHARACTERISTICS

Age.—The age classification is based on the age of the person in completed years as of April 1, 1970, and was determined from the reply to questions on age and on month and year of birth.

Race.—Data are shown for two racial categories, white and Negro. The

category "white" includes persons who indicated their race as white, as well as persons who did not classify themselves in one of the specific race categories on the questionnaire but entered Mexican, Puerto Rican, or a response suggesting Indo-European stock. The category "Negro" includes persons who indicated their race as Negro or Black, as well as persons who did not classify themselves in one of the specific race categories on the questionnaire but who had such entries as Jamaican, Trinidadian, West Indian, Haitian, and Ethiopian. All other racial categories, such as American Indian, Japanese, and Chinese, are included in the total but not shown separately. The classification by race shown for occupied housing units refers to the race of the head of the household occupying the unit.

Differences in the statistics on race in tables P-1, H-1, and H-3, containing 100-percent data, and tables P-5, P-6, and H-4, containing sample data, are due partly to the manual editing of the sample questionnaires. Many persons who reported their race as "Other" on the questionnaire also supplied a write-in entry that indicated the proper race classification should have been one of the specific race categories, e.g., white, Negro, etc. While the field edit procedures included a review of such entries on all questionnaires before the 100-percent data were tabulated, manual editing of the sample questionnaires after the 100-percent data were tabulated resulted in some further changes in classification by race.

Nativity, parentage, and country of origin.—The category "native" comprises persons born in the United

States, the Commonwealth of Puerto Rico or an outlying area of the United States, or at sea. Also included in this category is the small number of persons who, although they were born in a foreign country, have at least one native American parent. The category "foreign-born" includes all persons not classified as native. The category "native of native parentage" comprises native persons both of whose parents are also natives of the United States. "Native of foreign or mixed parentage" comprises native persons one or both of whose parents are foreign born.

The category "foreign stock" includes the foreign-born population and the native population of foreign or mixed parentage. In this report, persons of foreign stock are classified according to their country of origin. Natives of foreign parentage whose parents were born in different countries are classified according to the country of birth of the father. Natives of mixed parentage are classified according to the country of birth of the foreign-born parent.

Spanish heritage.—In the census tract reports, separate tables are presented for the population of Spanish heritage, which is variously identified in the reports for different areas: in 42 States and the District of Columbia it is identified as "Persons of Spanish language"; in five Southwestern States, as "Persons of Spanish language or Spanish surname"; and in the Middle Atlantic States, as "Persons of Puerto Rican birth or parentage." Similarly, separate housing statistics are presented for housing units in these categories, identified on the basis of the classification of the household head occupying the unit. The specific definitions

involved in identifying these population groups are given below.

Spanish language.—Persons of Spanish language comprise persons of Spanish mother tongue (see definition below) and all other persons in families in which the head or wife reported Spanish as his or her mother tongue. A housing unit is classified as occupied by persons of Spanish language if the head or his wife reported Spanish as his or her mother tongue.

Spanish surname.—In five Southwestern States (Arizona, California, Colorado, New Mexico, and Texas) persons with Spanish surnames are identified. Separate statistics are presented, in these States, for persons of Spanish language combined with all additional persons of Spanish surname. These additional persons are shown in the category "Other persons of Spanish surname."

Puerto Rican birth or parentage.—The population of Puerto Rican birth or parentage includes persons born in Puerto Rico and persons born in the United States or an outlying area with one or both parents born in Puerto Rico. Statistics for this group are shown for areas in New York, New Jersey, and Pennsylvania.

Spanish mother tongue.—Mother tongue is defined as the language spoken in the person's home when he was a child.

In two tracted areas that cross State lines, Wilmington, Del.—N.J.—Md., and Texarkana, Tex.—Ark., the population of Spanish heritage in each State portion is identified, for tabula-

tion purposes, in the manner specified above for that State, and the segments for the different States are combined to form a total for the area. The term used to describe this population in tables P-7, P-8, and H-5, however, is the term applicable in the State containing the major portion of the SMSA. Thus, for the Wilmington SMSA, the term applicable in Delaware, "Persons of Spanish language," is used; and in the Texarkana SMSA the term applicable in Texas, "Persons of Spanish language or Spanish surname," is used.

Household.—A household includes all the persons who occupy a group of rooms or a single room which constitutes a housing unit (see definition of housing unit, below). The average population per household is obtained by dividing the population in households by the number of household heads.

The population per household for Negroes and persons of Spanish heritage, shown in tables P-5 and P-7, may not in all cases be a true representation of the household size for these groups. For example, some persons of a given group may be roomers or domestic employees living with household heads of a different ethnic classification.

Relationship to head of household.—Four categories of relationship to head of household are recognized in this report:

1. *Head of household.*—One person in each household is designated as the "head," that is, the person who is regarded as the head by the members of the household. However, if a married woman living with her husband was reported as the head, her husband was con-

sidered the head for the purpose of simplifying the tabulations. Two types of household heads are distinguished — the head of a family and a primary individual. A family head is a household head living with one or more persons related to him by blood, marriage, or adoption. A primary individual is a household head living alone or with nonrelatives only.

2. *Wife of head.*—A woman married to and living with a household head, including women in common-law marriages as well as women in formal marriages. In table P-1, which is based on 100-percent tabulations, the number of wives is the same as the number of "husband-wife households" and the number of "husband-wife families." In tables P-5 and P-7, which are based on a sample and are limited to a specific ethnic group, the numbers may differ, because of minor differences in the weighting of the data and because a husband and wife do not always have the same ethnic classification.
3. *Other relative of head.*—All persons related to the head of the household by blood, marriage, or adoption except "wife of head."
4. *Not related to head.*—All persons in the household not related to the head by blood, marriage, or adoption. Roomers, boarders, lodgers, partners, resident employees, wards, and foster children are included in this category.

Group quarters.—Persons in living arrangements other than households are classified by the Bureau of the Census as living in group quarters. Group quarters are located most frequently in institutions, rooming houses, military

barracks, college dormitories, fraternity and sorority houses, hospitals, monasteries, convents, and ships. A house or apartment is considered group quarters if it is shared by the person in charge and five or more persons unrelated to him, or, if there is no person in charge, by six or more unrelated persons.

Inmate of institution.—Inmates of institutions are persons under care or custody at the time of enumeration in homes, schools, hospitals or wards for juveniles, the physically handicapped, or the mentally handicapped; homes or hospitals for mental, tuberculosis, or other chronic disease patients; homes for unwed mothers; nursing, convalescent, and rest homes; homes for the aged and dependent; and correctional institutions.

Family.—According to 1970 census definitions, a family consists of a household head and one or more other persons living in the same household who are related to the head by blood, marriage, or adoption; all persons in a household who are related to the head are regarded as members of his (her) family. A "husband-wife family" is a family in which the head and his wife are enumerated as members of the same household. Not all households contain families, because a household may be composed of a group of unrelated persons or one person living alone. The mean size of family is derived by dividing the number of persons in families by the total number of families.

Own children and related children.—This report shows statistics on families by presence of "own" children and "related" children of specified ages. A child under 18 years old is defined

as an "own child" if he or she is a single (never married) son, daughter, stepchild, or adopted child. The number of children "living with both parents" includes stepchildren and adopted children as well as sons and daughters born to the couple. "Related children" in a family include all persons under 18 related to the head except "wife of head." The "mean number of related children" is derived by dividing the total number of related children of the specified age in families by the number of families having children of that age. In table P-1 the number of own children under 18 years of age is divided by "persons under 18 years" to obtain the "percent of total under 18 years."

Unrelated individuals.—An unrelated individual, as defined in this report, may be any of the following: a household head living alone or with nonrelatives only, a household member not related to the head, or a person living in group quarters who is not an inmate of an institution.

Marital status.—The marital status classification refers to the status at the time of enumeration. Persons classified as "married" consist of those who have been married only once and those who remarried after having been widowed or divorced. Persons reported as separated (living apart because of marital discord, with or without a legal separation) are classified as a subcategory of married persons. Persons in common-law marriages are classified as married, and persons whose only marriage had been annulled are classified as never married. All persons reported as never married are shown as "single" in this report.

Children ever born.—In this report, statistics on the number of children ever born are presented for women 35 to 44 years old who have ever been married. Respondents were instructed to include children born to the woman before her present marriage, children no longer living, and children away from home, as well as children born to the woman who were still living in the home.

School enrollment.—School enrollment is shown for persons 3 to 34 years old. Persons were included as enrolled in school if they reported attending a "regular" school or college at any time between February 1, 1970, and the time of enumeration. Regular schooling is that which may advance a person toward an elementary school certificate or high school diploma, or a college, university, or professional degree. Schooling that was not obtained in a regular school and schooling from a tutor or through correspondence courses were counted only if the credits obtained were regarded as transferable to a school in the regular school system. Persons were included as enrolled in nursery school only if the school included instruction as an important and integral phase of its program. Schooling which is generally regarded as not "regular" includes that given in nursery schools which simply provide custodial day care, in specialized vocational, trade, or business schools, in on-the-job training, and through correspondence courses.

Elementary school, as defined here, includes grades 1 to 8, and high school includes grades 9 to 12. If a person was attending a junior high school, the equivalent in terms of 8 years of elementary school and 4 years of high school was recorded. In general,

a "public" school is defined as any school which is controlled and supported primarily by a local, State, or Federal government agency.

Years of school completed.—The data on years of school completed were derived from the answers to the two questions: (a) "What is the highest grade (or year) of regular school he has ever attended?" and (b) "Did he finish the highest grade (or year) he attended?" Persons whose highest grade of attendance was in a foreign school system, or in an ungraded school whose highest level of schooling was measured by "readers," or whose training was received through a tutor were instructed to report the approximate equivalent grade in the regular United States school system. A person was reported as not having completed a given grade if he dropped out or failed to pass the last grade attended.

Residence in 1965.—Residence on April 1, 1965, is the usual place of residence five years before enumeration. The category "same house" includes all persons five years old and over who did not move during the five years as well as those who had moved but by 1970 had returned to their 1965 residence. The category "different house" includes persons who, on April 1, 1965, lived in the United States in a different house from the one they occupied on April 1, 1970, and for whom sufficient information concerning the 1965 residence was collected. These persons were subdivided into three groups according to their 1965 residence in or outside a standard metropolitan statistical area: "in central city of this SMSA," "in other part of this SMSA," and "outside this SMSA." The category

"abroad" includes those with residence in a foreign country or outlying area of the United States in 1965.

Reference week.—The data on employment status and place of work relate to the calendar week preceding the date on which the respondents completed their questionnaires or were interviewed by enumerators. This week is not the same for all respondents because not all persons were enumerated during the same week.

Employment status.—Employed persons comprise all civilians 16 years old and over who were either (a) "at work" — those who did any work at all as paid employees or in their own business or profession, or on their own farm, or who worked 15 hours or more as unpaid workers on a family farm or in a family business; or (b) were "with a job but not at work" — those who did not work during the reference week but had jobs or businesses from which they were temporarily absent due to illness, bad weather, industrial dispute, vacation, or other personal reasons. Excluded from the employed are persons whose only activity consisted of work around the house or volunteer work for religious, charitable, and similar organizations.

Persons are classified as unemployed if they were civilians 16 years old and over and: (a) were neither "at work" nor "with a job, but not at work" during the reference week, (b) were looking for work during the past 4 weeks, and (c) were available to accept a job. Persons who did not work at all during the reference week and were waiting to be called back to a job from which they had been laid off are also included as unemployed.

The "civilian labor force" consists of persons classified as employed or unemployed in accordance with the criteria described above. The "labor force" includes all persons in the civilian labor force plus members of the Armed Forces (persons on active duty with the United States Army, Air Force, Navy, Marine Corps, or Coast Guard). All persons 16 years old and over who are not classified as members of the labor force are defined as "not in labor force." This category consists mainly of students, housewives, retired workers, seasonal workers enumerated in an "off" season who were not looking for work, inmates of institutions, disabled persons, and persons doing only incidental unpaid family work (less than 15 hours during the reference week). Of these groups, students and inmates are shown separately in selected tables.

Place of work.—Place of work refers to the geographic location at which civilians and Armed Forces personnel not on leave carried out their occupational or job activities during the reference week. For the purposes of this report, these locations were defined with respect to the boundaries of the standard metropolitan statistical area as "inside SMSA" and "outside SMSA." Locations within the SMSA, were subdivided into the central business district of the central city, the balance of that county, or, if outside that county, the specific county of the SMSA.

The central business district (CBD) is usually the downtown retail trade area of the city. As defined by the Bureau of the Census, the CBD is an area of very high land valuation characterized by a high concentration of retail business offices, theaters, hotels, and service businesses, and with a

high traffic flow. CBD's consist of one or more census tracts and have been defined only in cities with a population of 100,000 or more. In order to be counted as working in the CBD, the respondent had to give the exact address (street name and number) of his place of work. Since some respondents did not do this, the number of persons working in the CBD is usually understated by an unknown amount.

The exact address (number and street name) for the place of work was asked. Persons working at more than one job were asked to report the location of the job at which they worked the greatest number of hours during the reference week. Salesmen, deliverymen, and others who work in several places each week were requested to give the address at which they began work each day, if they reported to a central headquarters. For cases in which daily work was not begun at a central place each day, the person was asked to report the exact address of the place where he worked the most hours last week. If his employer operated in more than one location (such as a grocery store chain or public school system), the exact address of the location or branch where the respondent worked was requested. When the number or street name could not be given, the name of the building or the name of the company for which he worked was to be entered.

Means of transportation to work.—Means of transportation to work refers to the chief means of travel or type of conveyance used in traveling to and from work on the last day the respondent worked at the address given as his or her place of work. The "chief means" referred to the

means of transportation covering the greatest distance if more than one means was used in daily travel. "Worked at home" was marked by a person who worked on a farm where he lived or in an office or shop in his home.

Occupation, industry, and class of worker.—The data on these three subjects in this report are for employed persons 16 years old and over and refer to the job held during the reference week. For persons employed at two or more jobs, the data refer to the job at which the person worked the greatest number of hours. The occupation and industry statistics presented here are based on the detailed systems developed for the 1970 census: see 1970 Census of Population, *Classified Index of Industries and Occupations*, U. S. Government Printing Office, Washington, D. C., 1971.

Income in 1969.—Information on money income received in the calendar year 1969 was requested from persons 14 years old and over. "Total income" is the algebraic sum of the amounts reported separately for wage and salary income, nonfarm net self-employment income, farm net self-employment income, Social Security or railroad retirement income, public assistance or welfare income, and all other income. The figures represent the amount of income regularly received before deductions for personal income taxes, Social Security, bond purchases, union dues, medicare deductions, etc.

"Wage or salary income" is defined as the total money earnings received for work performed as an employee at any time during the calendar year 1969. It includes wages, salary, pay from Armed Forces, commissions, tips, piece rate payments,

and cash bonuses earned. "Nonfarm net self-employment income" is defined as net money income (gross receipts minus business expenses) received from a business, professional enterprise, or partnership in which the person was engaged on his own account. "Farm net self-employment income" is defined as the net money income (gross receipts minus operating expenses) received from the operation of a farm by a person on his own account, as an owner, renter, or sharecropper.

"Social Security or railroad retirement income" includes cash receipts of Social Security pensions, survivors' benefits, permanent disability insurance payments, and special benefit payments made by the Social Security Administration (under the National old-age, survivors, disability, and health insurance programs) before deductions of health insurance premiums. "Medicare" reimbursements are not included. Cash receipts from retirement, disability, and survivors' benefit payments made by the U. S. Government under the Railroad Retirement Act are also included. "Public assistance income" includes cash receipts of payments made under the following public assistance programs: aid to families with dependent children, old-age assistance, general assistance, aid to the blind, and aid to the permanently and totally disabled. Separate payments received for hospital or other medical care are excluded from this item. "Income from all other sources" includes money income received from sources such as interest; dividends; net income (or loss) from property rentals; net receipts from roomers or boarders; veteran's payments; public or private pensions, periodic receipts from insurance policies or annuities; unemployment insurance benefits;

workmen's compensation cash benefits; net royalties; periodic payments from estates and trust funds; alimony or child support from persons who are not members of the household; net gambling gains; nonservice scholarships and fellowships; and money received for transportation and/or subsistence by persons participating in special governmental training programs, e.g., under the Manpower Development and Training Act.

Receipts from the following sources were not included as income: money received from the sale of property (unless the recipient was engaged in the business of selling such property); the value of income "in kind" such as food produced and consumed in the home or free living quarters; withdrawal of bank deposits; money borrowed; tax refunds; exchange of money between relatives living in the same household; gifts and lump-sum inheritances, insurance payments, and other types of lump-sum receipts.

Although the income statistics cover the calendar year 1969, the characteristics of persons and the composition of families refer to the time of enumeration (April 1, 1970). For most families, however, the income reported was received by persons who were members of the family throughout 1969.

The median income is the amount which divides the distribution into two equal groups, one having incomes above the median and the other having incomes below the median. For families and unrelated individuals the median income is based on the distribution of the total number of families and unrelated individuals, including those with no income.

The mean income is the amount obtained by dividing the total in-

come of a particular statistical universe by the number of units in that universe. Thus, mean family income is obtained by dividing total family income by the total number of families. For the six types of income the means are based on families having those types of income.

Care should be exercised in using and interpreting mean income values in the statistics for small areas or small subgroups of the population. Since the mean is strongly influenced by extreme values in the distribution, it is especially susceptible to the effects of sampling variability, misreporting, and processing errors. The median, which is not affected by extreme values, is, therefore, a better measure than the mean when the population base is small. The mean, nevertheless, is shown in this report for most small areas and small subgroups because, when weighted according to the number of cases, the means can be added to obtain summary measures for areas and groups other than those shown in this report.

Poverty status in 1969.—Families and unrelated individuals are classified as being above or below the poverty level, using the poverty index adopted by a Federal Interagency Committee in 1969. This index provides a range of income cutoffs or "poverty thresholds" adjusted to take into account such factors as family size, sex and age of the family head, the number of children, and farm-nonfarm residence. The poverty cutoffs for farm families have been set at 85 percent of the nonfarm levels. These income cutoffs are updated every year to reflect the changes in the Consumer Price Index. The poverty threshold for a nonfarm family of four was \$3,743 in 1969. For a detailed explanation of the poverty

definition, see **Current Population Reports**, Series P-23, No. 28, "Revisions in Poverty Statistics, 1959 to 1968."

Households below the poverty level are defined as households in which the total 1969 income of the family or primary individual was below the poverty level. The incomes of persons in the household other than members of the family or the primary individual are not included when determining poverty status of a household.

The households for which poverty status is shown cannot be compared with the total number of households shown elsewhere. The former exclude those in certain types of housing units: owner-occupied units are restricted to one-family units on places of less than 10 acres and without a business on the property; and renter-occupied units exclude one-family units on places of 10 acres or more.

The "ratio of family income to poverty level" is obtained by dividing the income of a family by its corresponding poverty threshold. The "income deficit" is the difference between the total income of families and unrelated individuals below the poverty level and their respective poverty thresholds. In computing the income deficit, families reporting a net income loss are assigned zero dollars, and for such cases the income deficit is equal to the poverty threshold. The aggregate income deficit provides an estimate of the amount of money which would be required to raise the incomes of all poor families and unrelated individuals to their respective thresholds at the poverty level. The mean income deficit is the amount obtained by dividing the aggregate income deficit of a group below the poverty level by the number of families or unrelated individuals (as appropriate) in that group.

HOUSING CHARACTERISTICS

Housing units and group quarters.—

Living quarters are classified in the census as either housing units or group quarters. Usually, living quarters are in structures intended for residential use (e.g., a one-family home, apartment house, hotel or motel, boarding house, mobile home or trailer, etc.). Living quarters may also be in structures intended for nonresidential use (e.g., the rooms in a warehouse where a watchman lives), as well as in tents, caves, old railroad cars, etc.

A housing unit is a house, an apartment, a group of rooms, or a single room occupied or intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants do not live and eat with any other persons in the structure and which quarters have either (1) direct access from the outside of the building or through a common hall or (2) complete kitchen facilities for the exclusive use of the occupants. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or non-related persons who share living arrangements (except as described in the next paragraph on group quarters). For vacant units, the criteria for separateness, direct access, and complete kitchen facilities for exclusive use are applied to the intended occupants whenever possible (or to the previous occupants if this information cannot be obtained). Both occupied and vacant housing units are included in the housing inventory, except that mobile homes, trailers, tents, etc., are included only if they are occupied.

Group quarters are living arrangements for institutional inmates or for

other groups containing five or more persons not related to the person in charge. Group quarters are located most frequently in institutions, boarding houses, military barracks, college dormitories, fraternity and sorority houses, hospitals, monasteries, convents, and ships. A house or apartment is considered group quarters if it is shared by the person in charge and five or more persons unrelated to him, or if there is no person in charge, by six or more unrelated persons. Information on the housing characteristics of group quarters was not collected in the census.

Year-round housing units.—Data on housing characteristics are limited to year-round housing units; i.e., all occupied units plus vacant units which are intended for year-round use. Vacant units intended for seasonal occupancy and vacant units held for migratory labor are excluded because it is difficult to obtain reliable information for them. Counts of the total housing inventory, however, are given for each area presented in this report.

Occupied housing units.—A housing unit is classified as occupied if a person or group of persons is living in it at the time of enumeration or if the occupants are only temporarily absent, for example, on vacation. However, if the persons staying in the unit have their usual place of residence elsewhere the unit is classified as vacant.

Vacant housing units.—A housing unit is vacant if no one is living in it at the time of enumeration, unless its occupants are only temporarily absent. In addition, a vacant unit may be one which is occupied entirely by persons who have a usual residence elsewhere.

New units not yet occupied are enumerated as vacant housing units if construction has reached a point where all exterior windows and doors are installed and final usable floors are in place. Vacant units are excluded if unfit for human habitation because the roof, walls, windows, or doors no longer protect the interior from the elements, or if there is positive evidence (such as a sign on the house or in the block) that the unit is to be demolished or is condemned.

Vacant housing units are classified in this report as either "seasonal and migratory" (i.e., intended for seasonal occupancy or held for migratory labor) or "year-round." "Seasonal" units are intended for occupancy during only certain seasons of the year. "Migratory" units are vacant units held for occupancy by migratory labor employed in farm work during the crop season. "Year-round" vacant housing units are available or intended for occupancy at any time of the year. A unit in a resort area which is usually occupied on a year-round basis is considered year-round. A unit used only occasionally throughout the year is also considered year-round.

Year-round vacant units are subdivided as follows: "for sale only"; "for rent" which also includes vacant units offered either for rent or for sale; and "other" which includes units sold or rented but not yet occupied by the new owner or renter, units held for the occasional use of the owner, and units being held off the market for other reasons.

Tenure.—A housing unit is "owner occupied" if the owner or co-owner lives in the unit, even if it is mortgaged or not fully paid for. A cooperative or condominium unit is "owner oc-

cupied" only if the owner or co-owner lives in it. All other occupied units are classified as "renter occupied," including units rented for cash rent and those occupied without payment of cash rent.

Persons.—Persons occupying the housing unit include not only occupants related to the head of the household but also any lodgers, roomers, boarders, partners, wards, foster children and resident employees who share the living quarters of the household head. The data on "persons" show the number of housing units occupied by the specified number of persons.

Units with one or more roomers, boarders, or lodgers are shown as a separate category. Not included as "roomers, boarders, or lodgers" are foster children or wards, servants who live in, companions, and partners.

Year moved into unit.—Data on year moved into unit are based on the information reported for the head of the household. The question refers to the year of latest move. Thus, if the head moved back into a unit he had previously occupied or if he moved from one apartment to another in the same building, the year he moved into his present unit was to be reported.

Complete kitchen facilities.—A unit has complete kitchen facilities when it has all three of the following for the exclusive use of the occupants of the unit: (1) An installed sink with piped water; (2) a range or cookstove; and (3) a mechanical refrigerator. All kitchen facilities must be located in the structure, although they need not be in the same room. Quarters with only portable cooking equipment are not considered as hav-

ing a range or cookstove. "Lacking complete kitchen facilities" means that the unit does not have all three specified kitchen facilities, or that they are also for the use of the occupants of other housing units.

Access.—"Access only through other living quarters" means that the occupants of a housing unit must go through someone else's living quarters to enter their own; that is, they do not have a direct entrance from the outside or through a common or public hall.

Rooms.—Rooms to be counted include whole rooms used for living purposes, such as living rooms, dining rooms, kitchens, bedrooms, finished recreation rooms, family rooms, etc. Not counted as rooms are bathrooms, porches, balconies, foyers, halls, half-rooms, kitchenettes, strip or pullman kitchens, utility rooms, unfinished attics, basements, or other space used for storage.

Persons per room.—This is computed by dividing the number of persons in the unit by the number of rooms in the unit. The figures shown, therefore, refer to the number of housing units having the specified ratio of persons per room.

Year structure built.—Year structure built refers to when the building was first constructed, not when it was remodeled, added to, or converted.

Units in structure.—In the determination of the number of units in a structure, all housing units, both occupied and vacant, were counted. The statistics are presented in terms of the number of housing units in structures of specified size, not in

terms of the number of residential structures.

A structure is a separate building that either has open space on all sides or is separated from other structures by dividing walls that extend from ground to roof.

Basement.—Statistics on basements are presented in terms of the number of housing units located in structures built with a basement, and are separately tabulated for one-family houses with basements. A structure has a basement if there is enclosed space in which persons can walk upright under all or part of the building.

Plumbing facilities.—The category "with all plumbing facilities" consists of units which have hot and cold piped water, as well as a flush toilet and a bathtub or shower inside the structure for the exclusive use of the occupants of the unit. "Lacking some or all plumbing" means that the unit does not have all three specified plumbing facilities (hot and cold piped water, as well as flush toilet and bathtub or shower inside the structure), or that the toilet or bathing facilities are also for the use of the occupants of other housing units.

Selected equipment.—Statistics are presented for the number of housing units with the following selected equipment.

With more than one bathroom.—A complete bathroom is a room with flush toilet, bathtub or shower, and wash basin with piped water. A partial or half bathroom has at least a flush toilet or bathtub (or shower), but does not have all the facilities for a complete bathroom. A housing

unit "with more than one bathroom" has, in addition to one complete bathroom, one or more partial or complete bathrooms.

With public water supply.—A public system refers to a common source supplying running water to six or more housing units. The water may be supplied by a city, county, water district, or private water company, or it may be obtained from a well which supplied six or more housing units.

With public sewer.—A "public sewer" is connected to a city, county, sanitary district, neighborhood, or subdivision sewer system. It may be operated by a government body or by a private organization. Small sewage treatment plants which in some localities are called neighborhood septic tanks are also classified as public sewers.

With air conditioning.—Air conditioning is the cooling of air by a refrigeration unit. A central system is a central installation which air-conditions the entire housing unit. A room unit is an individual air conditioner which is installed in a window or an outside wall and is generally intended to cool one room, although it may sometimes be used to cool more than one room.

Heating equipment.—The list of heating equipment refers to the type of heating equipment and not to the fuel used. "Steam or hot water" refers to a central heating system in which heat from steam or hot water is delivered through radiators or other outlets. "Warm air furnace" refers to a central system which provides warm air through ducts leading

to various rooms; central heat pumps are included in this category. "Built-in electric units" are permanently installed in the floors, walls or ceilings. A "floor, wall, or pipeless furnace" delivers warm air to the room right above the furnace or to the room(s) on one or both sides of the wall in which the furnace is installed. "Other means" includes room heaters with or without flue, fireplaces, stoves, and portable heaters of all types.

A housing unit "With central or built-in heating system" contains a steam or hot water system, a warm-air furnace, built-in electric units, or a floor, wall, or pipeless furnace.

Automobiles available.—Statistics on automobiles available represent the number of passenger automobiles, including station wagons, which are owned or regularly used by any member of the household and which are ordinarily kept at home. Taxicabs, pickups, or larger trucks were not to be counted.

Value.—Value is the respondent's estimate of how much the property (house and lot) would sell for if it were for sale. The term "specified owner-occupied units" means that the value data are limited to owner-occupied one-family houses on less than ten acres, without a commercial establishment or medical office on the property. Owner-occupied cooperatives, condominiums, mobile homes, and trailers are excluded from the value tabulations.

Mean value.—Mean value is the sum of the individual values reported, divided by the number of owner-occupied units for which value is shown. For purposes of computation, the mid-

points of the intervals were used, except that a mean value of \$3,500 was assigned to housing units in the interval "less than \$5,000" and a mean of \$60,000 was assigned to units in the interval "\$50,000 or more."

Contract rent.—Contract rent is the monthly rent agreed to, or contracted for, even if the furnishings, utilities, or services are included. The term "specified renter-occupied units" means that the contract rent data exclude one-family houses on ten acres or more. Renter units occupied without payment of cash rent are

shown separately as "no cash rent" in the rent tabulations.

Gross rent.—Monthly gross rent is the summation of contract rent plus the estimated average monthly cost of utilities (water, electricity, gas) and fuels (oil, coal, kerosene, wood, etc.), if these items are paid for by the renter, in addition to rent. Thus, gross rent is intended to eliminate individual differences which result from varying practices with respect to the inclusion of heat and utilities as part of the rental payment.

Mean gross rent.—Mean gross rent is the sum of the individual rental

amounts divided by the number of renter-occupied units, excluding one-family houses on ten acres or more.

Gross rent as percentage of income.—The yearly gross rent (monthly gross rent multiplied by 12) is expressed as a percentage of the total income in 1969 of the family or primary individual. The percentage was computed separately for each unit and was rounded to the nearest whole number. Units for which no cash is paid and units occupied by families or primary individuals who reported no income or a net loss comprise the category "not computed."

Appendix C.—ACCURACY OF THE DATA

SOURCES OF ERROR	App-13
EDITING OF UNACCEPTABLE DATA	App-13
SAMPLE DESIGN	App-14
RATIO ESTIMATION	App-15
SAMPLING VARIABILITY	App-17

SOURCES OF ERROR

Human and mechanical errors occur in any mass statistical operation such as a decennial census. Errors during the data collection phase can include failure to obtain required information from respondents, obtaining incorrect or inconsistent information, and recording information in the wrong place or incorrectly. Errors can also occur during the field review of the enumerator's work, the clerical handling of the questionnaires, and the various stages of the electronic processing of the material. Careful efforts are made in every census to keep the errors in each step at an acceptably low level. Quality control and check measures are utilized throughout the census operation.

In the manual editing and coding operation, a sample of the work of each coder was verified, and a coder who showed consistently high error rates was retrained. A coder who still did not produce work of acceptable quality after retraining was removed from the coding operation. In addition, provision was made for correction of any work units for which the error rate exceeded a maximum level. Information on error rates will be given in later publications.

As was done for the 1950 and 1960 censuses, evaluative material on many aspects of the 1970 census will be published as soon as the appropriate data are accumulated and analyzed.

A major concern in the evaluation work is to ascertain, insofar as possible, the degree of completeness of the count of both population and housing units.

EDITING OF UNACCEPTABLE DATA

The objective of the processing operation is to produce a set of statistics that describes the Nation's population and housing as accurately and clearly as possible. To meet this objective, certain unacceptable entries were edited.

In the field, questionnaires were reviewed for completeness by a census clerk or enumerator, and a followup was made for missing information. The major review occurred in the central processing office, where the editing and coding operation provided an opportunity to correct obvious errors in the respondents' entries for those items which required manual processing. In coding relationship to household head, for example, the clerk made use of written entries, which the computer is not able to read, in determining the correct entry where the machine readable item was blank or contained conflicting information. For a few of the items, the respondents' entries were reviewed for reasonableness or consistency on the basis of other information on the questionnaire. As a rule, however, editing was performed by hand only when it could not be done effectively by machine.

As one of the first steps in mechanical editing, the configuration of marks on the questionnaire was scanned electronically to determine whether it contained information for a person or merely spurious marks. If the

questionnaire contained entries for at least two of the basic characteristics (relationship, sex, race, age, marital status), or for at least two relevant sample characteristics, the inference was made that the marks represented a person. Names were not used as a criterion of the presence of a person because the electronic scanning was unable to distinguish between a name and any other entry in the name space.

If any characteristics for a person or housing unit were missing, they were, in most cases, supplied by allocation. Allocations, or assignments of acceptable codes in place of unacceptable entries, were needed most often where an entry for a given item was lacking or where the information reported for a person or housing unit on that item was inconsistent with other information for the person or housing unit. The assignment of acceptable codes in place of blanks or unacceptable entries, it is believed, enhances the usefulness of the data.

For housing data, the assignment was based on related information reported for the housing unit or on information reported for a similar unit in the immediate neighborhood. For example, if tenure for an occupied unit was omitted but a rental amount was reported, the computer automatically edited tenure to "rented for cash rent." The technique may also be illustrated by the procedure used in the assignment for unknown age. The computer stored reported ages of persons by sex, race, household relationship, and marital status. Each stored age was retained in the computer only until a person having the same set of characteristics, and with age reported was processed through the computer in the edit operation; this stored age was assigned to the next person whose age was

unknown and who otherwise had the same set of specified characteristics.

The editing process also includes another type of correction; namely, the assignment of a full set of characteristics for a person. When there was indication that a housing unit was occupied but the questionnaire contained no information for any person, a previously processed household was selected as a substitute and the full set of characteristics for each substitute person was duplicated.

Specific tolerances were established for the number of computer allocations and substitutions that would be permitted. If the number of corrections was beyond tolerance, the questionnaires in which the errors occurred were clerically reviewed. If it was found that the errors resulted from damaged questionnaires, from improper microfilming, from faulty reading by FOSDIC of undamaged questionnaires, or from other types of machine failure, the questionnaires were reprocessed.

The extent of allocation for States, counties, and other areas will be shown in the allocation tables in chapters B and C of the 1970 Census of Population Volume I, **Characteristics of the Population**, and chapters A and B of Census of Housing Volume I, **Characteristics for States, Cities, and Counties**.

SAMPLE DESIGN

For persons living in housing units at the time of the 1970 census, the housing unit, including all its occupants, was the sampling unit; for persons in group quarters identified in advance of the census, it was the person. In nonmail areas, the enumerator canvassed his assigned area and listed all housing units in an

address register sequentially in the order in which he first visited the units whether or not he completed the interview. Every fifth line of the address register was designated as a sample line, and the housing units listed on these lines were included in the sample. Each enumerator was given a random line on which he was to start listing and the order of canvassing was indicated in advance, although the instructions allowed some latitude in the order of

visiting addresses. In mail areas, the list of housing units was prepared prior to Census Day either by employing commercial mailing lists corrected through the cooperation of the post office or by listing the units in a process similar to that used in nonmail areas. As in other areas, every fifth housing unit of these lists was designated to be in the sample. In group quarters, all persons were listed and every fifth person was selected for the sample.

TABLE C. Sample Rate for Subjects Included in This Report

[Subjects marked with an asterisk (*) were tabulated on a 100% basis for tables P-1, H-1, and H-3. All subjects shown in the tables for persons of Spanish heritage (P-7, P-8, and H-5) were tabulated on a 15% basis. The subjects covered in the remaining tables (P-2 to P-6, H-2, and H-4) were tabulated according to the sample rates shown below]

Population subjects	Sample rate (percent)	Housing subjects	Sample rate (percent)
*Sex	20	*All year-round housing units	20
*Race	20	*Occupied housing units: table H-2.	15
*Age	20	table H-4.	20
*Household relationship	20	*Cooperative or condominium	—
*Family composition	20	*Vacancy status	—
*Marital status	—	*Tenure of housing unit	—
Children ever born	20	Year moved into unit	15
Country of origin	15	*Number of rooms	—
Nativity and parentage	15	*Size of household (persons)	—
School enrollment	15	*Persons per room	—
Years of school completed	20	*Plumbing facilities	—
Residence in 1965	15	Bathrooms	15
Employment status	20	Source of water	15
Place of work	15	Sewage disposal	15
Means of transportation to work	15	*Complete kitchen facilities	—
Occupation	20	*Access	—
Industry	20	Units in structure	20
Class of worker	20	Year structure built	20
Income	20	Basement	20
Poverty status	20	Heating equipment	20
		Air conditioning	15
		Automobiles available	15
		*Value	—
		*Contract rent	—
		Gross rent	20

This 20-percent sample was subdivided into a 15-percent and a 5-percent sample by designating every fourth 20-percent sample unit as a member of the 5-percent sample. The remaining sample units became the 15-percent sample. Two types of sample questionnaires were used, one for the 5-percent and one for the 15-percent sample units. Some questions were included on both the 5-percent and 15-percent sample forms and therefore appear for a sample of 20 percent of the units in the census. Other items appeared on either the 15-percent or the 5-percent questionnaires. The sample rates for the various items appearing in this report are shown in table C.

Although the sampling procedure did not automatically insure an exact 20-percent sample of persons or housing units in each locality, the sample design was unbiased if carried through according to instructions; generally for large areas the deviation from 20 percent was found to be quite small. Biases may have arisen when the enumerator failed to follow his listing and sampling instructions exactly. Quality control procedures were used throughout the census process, however, and where there was clear evidence that the sampling procedures were not properly followed, the work was returned to the field for re-sampling. No attempt at sampling was made for the relatively small numbers of persons and housing units (in most States, less than one percent) added to the enumeration from the post-census post office check, the various supplemental forms, and the special check of vacant units. The ratio estimation procedure described below adjusts the sample data to reflect these classes of population and housing units.

RATIO ESTIMATION

The statistics based on 1970 census sample data are estimates made through the use of ratio estimation procedures, applied separately for the 15- and 20-percent samples. The first step in carrying through the ratio estimates was to establish the areas within which separate ratios were to be prepared. These are referred to as "weighting areas." A single set of weighting areas, containing a minimum population size of 2,500, was defined for use with the 15- and 20-percent samples. Weighting areas were established by mechanical operation on the computer and were defined to conform, as nearly as possible, to areas for which tabulations are produced. In general, sample estimates for a tract may be expected to agree with complete counts whenever the tract was a weighting area. However, tracts were not weighting areas whenever the population was less than 2,500 persons, where the tract was a part of more than one county subdivision or place, or where the Census procedure was not the same in all parts of the tract. In these situations, part of a tract may have been combined with other partial or complete tracts to make up a weighting area and sample estimates for an individual tract in the combination may not agree with complete counts for the tract.

Separate ratio estimation processes were used for persons and for housing units. The ratio estimation process for persons operated in three stages. The first stage employed 19 household-type groups (the first of which was empty by definition). The second stage used two groups, head of household and not head of household, and the third stage used 24 age-sex-race groups.

Group	STAGE I
	<i>Male Head With Own Children Under 18</i>
1	1-person household
2	2-person household
3	3-person household
.	.
.	.
6	6-or-more-person household
	<i>Male Head Without Own Children Under 18</i>
7-12	1-person to 6-or-more-person households
	<i>Female Head</i>
13-18	1-person to 6-or-more-person households
19	<i>Group Quarters Persons</i>
	STAGE II
20	<i>Head of Household</i>
21	<i>Not Head of Household (including persons in group quarters)</i>
	STAGE III
	<i>Male Negro</i>
22	Age under 5 years
23	5-13
24	14-24
25	25-44
26	45-64
27	65 and older
	<i>Male, Not Negro</i>
28-33	Same age groups as for Male Negro
	<i>Female Negro</i>
34-39	Same age groups as for Male Negro
	<i>Female, Not Negro</i>
40-45	Same age groups as for Male Negro

APPENDIX C—Continued

The ratio estimation process for housing operated in two stages for occupied housing units, and in one stage for vacant units. The first stage for occupied units employed 18 household-type groups (the first of which was empty by definition); the second stage for occupied units used four groups: owner and renter occupied units, by race. The single stage for vacant units employed three groups: year-round vacant for sale, year-round vacant for rent, and other vacant.

Occupied housing units:

<i>Group</i>	STAGE I
	<i>Male Head With Own Children Under 18</i>
1	1-person household
2	2-person household
3	3-person household
.	.
.	.
6	6-or-more-person household
	<i>Male Head Without Own Children Under 18</i>
7-12	1-person to 6-or-more person households
	<i>Female Head</i>
13-18	1-person to 6-or-more-person households
	STAGE II
	<i>Owner Occupied</i>
19	Negro
20	Not Negro
	<i>Renter Occupied.</i>
21	Negro
22	Not Negro

Vacant housing units:

<i>Group</i>	STAGE I
23	Year-round vacant for sale
24	Year-round vacant for rent
25	Other vacant

At each stage, for each of the groups, the ratio of the complete count to the weighted sample count in the group was computed and applied to the weight of each sample person or housing unit in the group. For population, this operation was performed for each of the 19 groups in the first stage, then for the two groups in the second stage and finally for the 24 groups in the third stage. For occupied housing units this was performed first for the 18 groups in the first stage and then for the 4 groups in the second stage.

As a rule, the weighted sample counts within each of the groups in the final stage should agree with the complete counts for the weighting areas. Close, although not exact, consistency can be expected for the groups in the preceding stages. There are some exceptions to this general rule, however. As indicated above, there may be differences between the complete counts and sample estimates when the tabulation area is not made up of whole weighting areas. As a result, sample estimates at the tract level may not agree with complete counts when the tract did not form a weighting area. Generally, for 15- and 20-percent items, there may be such a difference whenever the population in the tract is less than 2,500 people. Furthermore, in order to increase the reliability, a separate ratio was not computed in a ratio estimation group whenever certain criteria pertaining to the complete counts and the magnitude of the weight were

not met. For example, for the 15- and 20-percent population sample the complete count of persons in a group had to exceed 85 persons and the ratio of the complete count to the un-weighted sample count could not exceed 20. Where these criteria were not met, groups were combined in a specific order until the conditions were met. Where this occurred, consistency between the weighted sample and the complete counts would apply as indicated above for the combined group but not necessarily for each of the groups in the combination.

Each sample person or housing unit was assigned an integral weight to avoid the complications involved in rounding in the final tables. If, for example, the final weight for a group was 5.2, one-fifth of the persons or housing units in the group (selected at random) were assigned a weight of 6 and the remaining four-fifths a weight of 5.

The estimates realize some of the gains in sampling efficiency that would have resulted had the persons and housing units been stratified into the groups before sampling. The net effect is a reduction in both the sampling error and possible bias of most statistics below what would be obtained by weighting the results of the sample by a uniform factor (e.g., by weighting the 20-percent sample results by a uniform factor of 5). The reduction in sampling error will be trivial for some items and substantial for others. A by-product of this estimation procedure is that estimates for this sample are, in general, consistent with the complete count for the groups used in the estimation procedure. A more complete discussion of the technical aspects of these ratio estimates will be presented in a separate report.

SAMPLING VARIABILITY

The estimates from sample tabulations are subject to sampling variability. The standard errors of these estimates can be approximated by using the data in tables D through F. The chances are about 2 out of 3 that the difference (due to sampling variability) between the sample estimate and the figure that would have been obtained from a complete count of the population is less than the standard error. The chances are about 19 out of 20 that the difference is less than twice the standard error and about 99 out of 100 that it is less than 2½ times the standard error. The amount by which the estimated standard error must be multiplied to obtain other odds deemed more appropriate can be found in most statistical textbooks. The sampling errors may be obtained by using the factors shown in table F in conjunction with table D for absolute numbers and in conjunction with table E for percentages. In addition to sampling errors, these tables reflect the effect of simple response variance, but not of bias arising in the collection, processing and estimation steps, nor of the correlated errors enumerators introduce; estimates of the magnitude of some of these factors in the total error are being evaluated and will be published at a later date.

Table D shows approximate standard errors of estimated numbers for most statistics based on the 20-percent sample. In determining the figures for this table, some aspects of the sample design, the estimation process, and the population of the area over which the data have been compiled are ignored. Table E shows standard errors of most percentages based on

the 20-percent sample. Linear interpolation in tables D and E will provide approximate results that are satisfactory for most purposes. Table F provides a factor by which the standard errors shown in tables D or E should be multiplied to adjust for the combined effect of the sample size (i.e., whether a 20-percent or 15-percent sample) the sample design and the estimation procedure.

To estimate the standard error for a given characteristic based on the 15-percent sample, or for a more precise estimate for the 20-percent sample, locate in table F the factor applying to the characteristic and sample size used to tabulate the data and multiply this factor by the standard error found in table D or E. If the estimate is not identified in table F, use the factor shown for "all other." Where data are shown as cross-classifications of two characteristics, locate and use the larger factor. Similarly, if an item collected on a 20-percent basis has been tabulated for the 15-percent sample, use the factor appropriate for the 15-percent sample.

The standard errors estimated from these tables are not directly applicable to differences between two sample estimates. In order to estimate the standard error of a difference, the tables are to be used somewhat differently in the three following situations:

1. For a difference between the sample figure and one based on a complete count (e.g., arising from comparisons between 1970 sample statistics and complete-count statistics for 1960 or 1950), the standard error is identical with the standard error of the 1970 estimate alone.

2. For a difference between two sample figures (that is, one from 1970 and the other from 1960, or both from the same census year), the standard error is approximately the square root of the sum of the squares of the standard errors of each estimate considered separately. This formula will represent the actual standard error quite accurately for the difference between 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. The approximate standard error for the 1970 sample figure is derived directly from tables D through F. The standard error of a 25-percent 1960 sample figure may be obtained from the relevant 1960 census report or an approximate value may be obtained by multiplying the appropriate value in table D or E by 0.9.

3. For a difference between two sample estimates, one of which represents a subclass of the other, the tables can be used directly, with the difference considered as the sample estimate.

The sampling variability of the medians presented in certain tables (median years of school completed, median rent, etc.) depends on the size of the base and on the distribution on which the median is based. An approximate method for measuring the reliability of an estimated median is to determine an interval about the estimated median such that there is a stated degree of confidence the true median lies

within the interval. As the first step in estimating the upper and lower limits of the interval (that is, the confidence limits) about the median, compute one-half the number on which the median is based (designated $N/2$). From table D, following the method outlined in other parts of this section, compute the standard error of an estimated number equal to $N/2$. Subtract this standard error from $N/2$. Cumulate the frequencies (in the table on which the median is based) until the total first exceeds the difference between $N/2$ and its standard error and by linear interpolation obtain a value corresponding to this number. In a corresponding manner, add the standard error to $N/2$, cumulate the frequencies in the table, and obtain a value in the table on which the median is based corresponding to the

sum of $N/2$ and its standard error. The chances are about 2 out of 3 that the median would lie between these two values. The range for 19 chances out of 20 and for 99 in 100 can be computed in a similar manner by multiplying the standard error by the appropriate factors before subtracting from and adding to one-half the number reporting the characteristic. Interpolation to obtain the values corresponding to these numbers gives the confidence limits for the median.

The sampling variability of a mean, such as the number of children ever born per 1,000 women or mean income, presented in certain tables, depends on the variability of the distribution on which the mean is based, the size of the sample, the sample design, (for example, the use of house-

holds as the sampling unit), and the use of ratio estimates.

An approximation to the variability of the mean may be obtained as follows: compute the standard deviation of the distribution on which the mean is based; divide this figure by the square root of one-fifth of the total units in the distribution; multiply this quotient by the factor from table F appropriate to the statistic and the actual sample rate on which the mean is based. If the distribution is not published in the detailed tables, calculate the standard deviation from a comparable distribution for a larger area or for a similar population group; divide by the square root of one-fifth of the units on which the mean of interest is based; multiply the quotient by the factor from table F.

TABLE D. Approximate Standard Error of Estimated Number Based on 20-Percent Sample (Range of 2 chances out of 3)

Estimated number (persons or housing units)	Standard error	Estimated number (persons or housing units)	Standard error
50.....	15	1,000	60
100.....	20	2,500	85
250.....	30	5,000	100
500.....	45		

TABLE E. Approximate Standard Error of Estimated Percentage Based on 20-Percent Sample (Range of 2 chances out of 3)

Estimated percentage	Base of percentage (persons or housing units)					
	500	1,000	2,500	5,000	10,000	15,000
2 or 98	1.3	0.9	0.6	0.4	0.3	0.2
5 or 95	2.0	1.4	0.9	0.6	0.4	0.4
10 or 90	2.7	1.9	1.2	0.8	0.6	0.5
25 or 75	3.9	2.7	1.7	1.2	0.9	0.7
50.....	4.5	3.2	2.0	1.4	1.0	0.8

TABLE F. Factor to be Applied to Standard Errors

[Subjects marked with an asterisk were tabulated on a 100% basis for tables P-1, H-1, and H-3.
Standard errors are not applicable to these tables]

Population subjects ¹	Sample rate (percent)	Factor	Housing subjects ¹	Sample rate (percent)	Factor
*Race	20	0.9	*Tenure	20	0.2
*Age	20	0.8	*Rooms	20	1.0
*Household relationship	20	0.5	*Persons per room	20	0.4
*Family composition	20	0.6	*Value	20	1.0
Country of origin (including			Units in structure	20	0.8
Spanish heritage subjects)	15	1.6	Year structure built	20	0.9
Nativity and parentage	15	1.7	Heating equipment	20	0.8
School enrollment	15	1.0	Basement	20	0.9
Years of school completed	20	1.0	Source of water	15	1.0
Residence in 1965	15	2.0	Sewage disposal	15	1.0
Employment status	20	0.8	Air conditioning	15	1.1
Place of work	15	1.3	Year moved into unit	15	1.1
Means of transportation			Gross rent	20	0.9
to work	15	1.3	All other—20 percent	20	1.0
Occupation	20	1.1	—15 percent	15	1.2
Industry	20	1.1			
Class of worker	20	1.1			
Income—persons	20	1.0			
—families	20	1.0			
Poverty status—persons	20	1.9			
—families	20	1.0			
All other—20 percent	20	1.0			
—15 percent	15	1.2			

¹Tabulations of data for persons of Spanish heritage are based on the 15-percent sample. For subjects shown in this table as based on the 20-percent sample, the factor for persons of Spanish heritage is obtained by multiplying the appropriate factor in this table by 1.2. For subjects shown as based on the 15-percent sample, the factor in this table can be used directly.

Appendix D.—PUBLICATION AND COMPUTER SUMMARY TAPE PROGRAM

The results of the 1970 Census of Population and Housing are being issued in the form of printed reports, microfiche copies of the printed reports, computer summary tapes, computer printouts, and microfilm. Listed below are short descriptions of the final report series and computer tapes, as currently planned. More detailed information on this program can be obtained by writing to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

Population Census Reports

Volume I.

CHARACTERISTICS OF THE POPULATION

This volume will consist of 58 "parts"—number 1 for the United States, numbers 2 through 52 for the 50 States and the District of Columbia in alphabetical order, and numbers 53 through 58 for Puerto Rico, Guam, Virgin Islands, American Samoa, Canal Zone, and Trust Territory of the Pacific Islands, respectively. Each part, which will be a separate cloth-bound book, will contain four chapters designated as A, B, C, and D. Each chapter (for each of the 58 areas) will first be issued as an individual paperbound report in four series designated as PC(1)-A, B, C, and D, respectively. The 58 PC(1)-A reports will be specially assembled and issued in a clothbound book, designated as Part A.

■ Series PC(1)-A. NUMBER OF INHABITANTS.

Final official population counts are presented for States, counties by urban and rural residence, standard metropolitan statistical areas (SMSA's), urbanized areas, county subdivisions, all incorporated places, and unincorporated places of 1,000 inhabitants or more.

■ Series PC(1)-B. GENERAL POPULATION CHARACTERISTICS

Statistics on age, sex, race, marital status, and relationship to head of household are presented for States, counties by urban and rural residence, SMSA's, urbanized areas, county subdivisions, and places of 1,000 inhabitants or more.

■ Series PC(1)-C. GENERAL SOCIAL AND ECONOMIC CHARACTERISTICS

Statistics are presented on nativity and parentage, State or country of birth, Spanish origin, mother tongue, residence 5 years ago, year moved into present house, school enrollment (public or private), years of school completed, vocational training, number of children ever born, family composition, disability, veteran status, employment status, place of work, means of transportation to work, occupation group, industry group, class of worker, and income (by type) in 1969 of families and individuals. Each subject is shown for some or all of the following areas: States, counties (by urban, rural-nonfarm, and rural-farm residence), SMSA's, urbanized areas, and places of 2,500 inhabitants or more.

■ Series PC(1)-D. DETAILED CHARACTERISTICS

These reports will cover most of the subjects shown in Series PC(1)-C, above, presenting the data in considerable detail and cross-classified by age, race, and other characteristics. Each subject will be shown for some or all of the following areas: States (by urban, rural-nonfarm, and rural-farm residence), SMSA's, and large cities.

Volume II.

SUBJECT REPORTS

Each report in this volume, also designated as Series PC(2), will concentrate on a particular subject. Detailed information and cross-relationships will generally be provided on a national and regional level; in some reports, data for States or SMSA's will also be shown. Among the characteristics to be covered are national origin and race, fertility, families, marital status, migration, education, unemployment, occupation, industry, and income.

Housing Census Reports

Volume I.

HOUSING CHARACTERISTICS FOR STATES, CITIES, AND COUNTIES

This volume will consist of 58 "parts"—number 1 for the United States, numbers 2 through 52 for the 50 States and the District of Columbia in alphabetical order, and numbers 53 through 58 for Puerto Rico, Guam, Virgin Islands, American Samoa, Canal Zone, and Trust Territory of the Pacific Islands, respectively. Each part, which will be a separate cloth-bound book, will contain two chapters designated as A and B. Each chapter (for each of the 58 areas) will first be issued as an individual paperbound report in two series designated as HC(1)-A and B, respectively.

■ Series HC(1)-A. GENERAL HOUSING CHARACTERISTICS

Statistics on tenure, kitchen facilities, plumbing facilities, number of rooms, persons per room, units in structure, mobile home, telephone, value, contract rent, and vacancy status are presented for some or all of the following areas: States (by urban and rural residence), SMSA's, urbanized areas, places of 1,000 inhabitants or more, and counties.

■ Series HC(1)-B. DETAILED HOUSING CHARACTERISTICS

Statistics are presented on a more detailed basis for the subjects included in the Series HC(1)-A reports, as well as on such additional subjects as year moved into unit, year structure built, basement, heating equipment, fuels, air conditioning, water and sewage, appliances, gross rent, and ownership of second home. Each subject is shown for some or all of the following areas: States (by urban, rural-nonfarm, and rural-farm residence), SMSA's, urbanized areas, places of 2,500 inhabitants or more, and counties (by rural and rural-farm residence).

Volume II.

METROPOLITAN HOUSING CHARACTERISTICS

These reports, also designated as Series HC(2), will cover most of the 1970 census housing subjects in considerable detail and cross-classification. There will be one report for each SMSA, presenting data for the SMSA and its central cities and places of 50,000 inhabitants or more, as well as a national summary report.

Volume III.

BLOCK STATISTICS

One report, under the designation Series HC(3), is issued for each urbanized area showing data for individual blocks on selected housing and population subjects. The series also includes reports for the communities outside urbanized areas which have contracted with the Census Bureau to provide block statistics from the 1970 census.

Volume IV.

COMPONENTS OF INVENTORY CHANGE

This volume will contain data on the disposition of the 1960 inventory and the source of the 1970 inventory, such as new construction, conversions, mergers, demolitions, and other additions and losses. Cross-tabulations of 1970 and 1960 characteristics for units that have not changed and characteristics of the present and previous residence of recent movers will also be provided. Statistics will be shown for 15 selected SMSA's and for the United States and regions.

Volume V.

RESIDENTIAL FINANCE

This volume will present data regarding the financing of privately owned nonfarm residential properties. Statistics will be shown on amount of outstanding mortgage debt, manner of acquisition of property, homeowner expenses, and other owner, property, and mortgage characteristics for the United States and regions.

Volume VI.
ESTIMATES OF "SUBSTANDARD"
HOUSING

This volume will present counts of "sub-standard" housing units for counties and cities, based on the number of units lacking plumbing facilities combined with estimates of units with all plumbing facilities but in "dilapidated" condition.

Volume VII.
SUBJECT REPORTS

Each series in this volume will concentrate on a particular subject. Detailed information and cross-classifications will generally be provided on a national and regional level; in some reports, data for States or SMSA's may also be shown. Among the subjects to be covered are housing characteristics by household composition, housing of minority groups and senior citizens, and households in mobile homes.

Joint Population-Housing Reports

Series PHC(1).
CENSUS TRACT REPORTS

This series contains one report for each SMSA, showing data for most of the population and housing subjects included in the 1970 census.

Series PHC(2).
GENERAL DEMOGRAPHIC TRENDS FOR
METROPOLITAN AREAS, 1960 to 1970

This series consists of one report for each State and the District of Columbia, as well as a national summary report, presenting statistics for the State and for SMSA's and their central cities and constituent counties. Comparative 1960 and 1970 data are shown on population counts by age and race and on such housing subjects as tenure, plumbing facilities, value, and contract rent.

Series PHC(3).
EMPLOYMENT PROFILES OF SELECTED
LOW-INCOME AREAS

This series will consist of approximately 70 reports, each presenting statistics on the social and economic characteristics of the residents of a particular low-income area. The data relate to low-income neighborhoods in 54 cities and seven rural poverty areas. Each report will provide statistics on employment and unemployment, education, vocational training, availability for work, job history, and income, as well as on value or rent and number of rooms in the housing unit.

Additional Reports

Series PHC(E).
EVALUATION REPORTS

This open series will present the results of the extensive evaluation program conducted as an integral part of the 1970 census program, and relating to such matters as completeness of enumeration and quality of the data on characteristics.

Series PHC(R).
PROCEDURAL REPORTS

This open series presents information on various administrative and methodological aspects of the 1970 census, and will include a comprehensive procedural history of the 1970 census. The first report issued focuses on the forms and procedures used in the data collection phase of the census.

Computer Summary Tapes

The major portion of the results of the 1970 census will be produced in a set of six tabulation counts. To help meet the needs of census users, these counts are being designed to provide data with much greater subject and geographic detail than it is feasible or desirable to publish in printed reports. The data so tabulated will generally be available—subject to suppression of certain detail where necessary to protect confidentiality—on magnetic computer tape, printouts, and microfilm, at the cost of preparing the copy.

First Count—source of the PC(1)-A reports; contains about 400 cells of data on the subjects covered in the PC(1)-B and HC(1)-A reports and tabulated for each of the approximately 250,000 enumeration districts in the United States.

Second Count—source of the PC(1)-B, HC(1)-A, and part of the PHC(1) reports; contains about 3,500 cells of data covering the subjects in these reports and tabulated for the approximately 35,000 tracts and 35,000 county subdivisions in the United States.

Third Count—source of the HC(3) reports; contains about 250 cells of data on the subjects covered in the PC(1)-B and HC(1)-A reports and tabulated for approximately 1,500,000 blocks in the United States.

Fourth Count—source of the PC(1)-C, HC(1)-B, and part of the PHC(1) reports; contains about 13,000 cells of data covering the subjects in these reports and tabulated for the approximately 35,000 tracts and 35,000 county subdivisions in the United States; also contains about 30,000 cells of data for each county.

Fifth Count—will contain approximately 800 cells of population and housing data for 5-digit ZIP code areas in SMSA's and 3-digit ZIP code areas outside SMSA's; the ZIP code data will be available only on tape.

Sixth Count—source of the PC(1)-D and HC(2) reports; will contain about 260,000 cells of data covering the subjects in these reports and tabulated for States, SMSA's, and large cities.

The tapes will generally be organized on a State basis. To use the First Count and Third Count tapes, it will be necessary to purchase the appropriate enumeration district and block maps.

The term "cells" used herein to indicate the scope of subject content of the several counts refers to each figure or statistic in the tabulation for a specific geographic area. For example, in the Third Count, there are six cells for a cross-classification of race by sex: three categories of race (white, Negro, other race) by two categories of sex (male, female). In addition to the above-mentioned summary tapes, the Census Bureau will make available for purchase certain sample tape files containing population and housing characteristics as shown on individual census records. These files will contain no names or addresses, and the geographic identification will be sufficiently broad to protect confidentiality. There will be six files, each containing a 1-percent national sample of persons and housing units. Three of the files will be drawn from the population covered by the census 15-percent sample and three from the population in the census 5-percent sample. Each of these three files will provide a different type of geographic information: One will identify individual large SMSA's and, for the rest of the country, groups of counties; the second will identify individual States and, where they are sufficiently large, will provide urban-rural and metropolitan-nonmetropolitan detail; and the third will identify State groups and size of place, with each individual record showing selected characteristics of the person's neighborhood.