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The Eighteenth Decennial Census of the United States

Census of Population: 1960

Volume I

CHARACTERISTICS OF THE POPULATION

Number of Inhabitants, General Population Characteristics,
General Social and Economic Characteristics,
and Detailed Characteristics

Part 7

COLORADO

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Library of Congress Card Number: A61-9570

The four chapters of tables in this report were originally published in the PC(1)-A, B, C, and D final reports for this State.

SUGGESTED CITATION

U.S. Bureau of the Census. *U.S. Census of Population: 1960.*
Vol. I, *Characteristics of the Population.*
Part 7, Colorado.
U.S. Government Printing Office, Washington, D.C., 1963.

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.
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PREFACE

This report presents statistics from the 1960 Census of Population on the number of inhabitants and the characteristics of the population of the State and of its constituent areas. Legal provision for this census, which was conducted as of April 1, 1960, was made in the Act of Congress of August 31, 1954 (amended August 1957) which codified Title 13, United States Code. Comparable statistics from earlier censuses are also presented in this report.

The major portion of the information compiled from the 1960 Census of Population is contained in Volume I, *Characteristics of the Population*. A description of the other final reports of the 1960 Population Census appears on page IV. Volume I, of which this report is a part, consists of Part A and the 57 numbered parts listed on page IV. The parts for the United States, each of the 50 States, the District of Columbia, and Puerto Rico are bound in 53 individual books; the 4 parts for Guam, the Virgin Islands of the United States, American Samoa, and the Canal Zone are bound in a single book.

The detailed tables presented in each numbered part of Volume I were originally published in four separate reports. Those reports (which correspond to chapters A, B, C, and D in this book) were identified by the following series designations and titles: PC(1)–A, *Number of Inhabitants;* PC(1)–B, *General Population Characteristics;* PC(1)–C, *General Social and Economic Characteristics;* and PC(1)–D, *Detailed Characteristics*. (For Guam, Virgin Islands, American Samoa, and Canal Zone, the material normally contained in the PC(1)–B, C, and D reports was included in PC(1)–B.)

Part A of Volume I is a compendium of the 57 series PC(1)–A reports. It presents in a single book, for library and other reference use, the 1960 Census population counts for States and their component areas.

ACKNOWLEDGMENTS

A large number of persons participated in the various activities of the 1960 Census of Population. Primary responsibilities were exercised by many of the persons listed on the preceding page. Within the Population, Demographic Operations, Field, Geography, and Statistical Methods Divisions, most of the staff members worked on the program.

This report was prepared under the supervision of Howard G. Brunsman, Chief, Population Division, and Henry S. Shryock, Jr., David L. Kaplan, and Paul C. Glick, Assistant Chiefs, with the assistance of Sigmund Schor (Systems Coordinator to January 1962). The following members of the Population Division also had a major role in planning the content of this report: Henry D. Sheldon, Chief, Tobia Bressler, Charles P. Brinkman, Elizabeth A. Larmon, Gordon F. Sutton, Melvin Zelnik, and Denis F. Johnston of the Demographic Statistics Branch; Charles B. Nam, Chief, Education and Social Stratification Statistics Branch; Wilson H. Grabill, Chief, John C. Beresford, David M. Heer, and Robert Parke, Jr., of the Family and Fertility Statistics Branch; Stanley Greene, Chief, Stuart H. Garfinkle (Chief to October 1961), William J. Milligan, Miles A. Abelson, Arthur Podolsky, and G. Marie Dodd of the Economic Statistics Branch; and James C. Byrnes, Chief, Selma F. Goldsmith (Chief to April 1962), and Arno I. Winard of the Consumer Income and Expenditures Statistics Branch. Technical editorial work was performed by Mildred M. Russell, Chief, Publications Branch, assisted by Leah S. Anderson.

Important contributions were made by Morton A. Meyer, Chief, Glen S. Taylor (Chief to June 1961), E. Richard Bourdon, Richard A. Hornseth, Morris Gorinson, Willard P. Hess, Patience Lauriat, Betty Mitchell, Catherine Neafsey, Richard J. Rice, Leo Solomon, and Florence Wright of the Demographic Operations Division in the processing and compilation of the statistics; Jefferson D. McPike, Chief, Robert B. Voight (Chief to July 1960), Ivan Munro, Paul R. Squires, and George K. Klink of the Field Division in the collection of the information; William T. Fay, Chief, Robert C. Klove, and Robert L. Hagan of the Geography Division in the delineation of special types of urban territory and other geographic work; Joseph Steinberg, Chief, Robert Hanson, and Herman Fasteau of the Statistical Methods Division in the planning of sampling and quality control procedures; and by William N. Hurwitz, Chief, Statistical Research Division, and Harold Nisselson, Jack Silver, Leon Gilford, and William H. Cook in the formulation of enumeration procedures.

Important contributions were also made by Lowell T. Galt and Herman P. Miller of the Office of the Director, by A. W. von Struve, Public Information Officer until his death in October 1962, and by the staffs of the Administrative Service Division, Everett H. Burke, Chief; Budget and Management Division, Charles H. Alexander, Chief; Jeffersonville Census Operations Office, Robert D. Krook, Chief; Data Processing Systems Division, Robert F. Drury, Chief; and Personnel Division, James P. Taff, Chief. Robert H. Brooks of the Administrative Service Division, assisted by John F. Lanham, was responsible for the 1960 Census printing arrangements.

To help carry out the 1960 Census most efficiently and effectively as well as to help maximize the usefulness of the results, a number of special advisory groups were organized in 1956 when the planning work was begun. One group established by the Census Bureau was the Technical Advisory Committee for the 1960 Population Census, which consisted of 19 experts in various phases of demography selected in their individual capacities. For their long and careful work on the program, special acknowledgment is made to the members of this Committee: Philip M. Hauser (chairman), Donald J. Bogue, Dorothy S. Brady, John D. Durand, John K. Folger, Maurice I. Gershenson, Harold Goldstein, Robert D. Grove, Margaret Jarman Hagood, Peter Henle, William Hodgkinson, Jr., Stanley Lebergott, Frank W. Notestein, Gladys L. Palmer, Charles B. Reeder, Calvin F. Schmid, Mortimer Spiegelman, Dorothy Swaine Thomas, and P. K. Whelpton. To supplement the views of this Committee with those of a less technically oriented but more broadly based group, the Census Bureau established the Council of Population and Housing Census Users (with Ralph J. Watkins, then of the Brookings Institution, as chairman), consisting of representatives of approximately 70 professional and public organizations whose memberships include many users of decennial census statistics. The U.S. Bureau of the Budget established the Federal Agency Population and Housing Census Council (with Peyton Stapp and Margaret E. Martin as successive chairmen) to coordinate the interests of the more than 30 Federal agencies which make substantial use of the decennial census material. In addition, the Population Association of America established a number of work groups to explore in detail the data needs for specific subjects; and the Census Advisory Committee of the American Statistical Association participated in certain phases of the 1960 Census as part of its continuing review of all Bureau programs. The guidance and counsel provided by all these groups, as well as by many other organizations and individuals, were invaluable in developing and carrying through the program.

March 1963.

FINAL REPORTS OF THE 1960 CENSUS OF POPULATION

The final reports of the 1960 Population Census are arranged in four volumes and a joint Population-Housing series of census tract reports. For Volumes II, III, and IV, which remain to be published as of this date, the scheduled content is subject to change. The 1960 Population Census publication program also includes preliminary, advance, and supplementary reports, certain evaluation, procedural, and administrative reports, and graphic summaries. After publication, copies of all reports are available for examination or purchase at any U.S. Department of Commerce Field Office. For reports not yet issued, more detailed descriptions of content than those given below can be obtained from the Chief, Population Division, Bureau of the Census, Washington 25, D.C.

Certain types of unpublished statistics are available for the cost of preparing a copy of the data. Also, under certain conditions, special tabulations of the 1960 Census data can be prepared on a reimbursable basis. In addition, there are available for purchase magnetic tapes and punchcards containing 1960 Census information on the characteristics of a one-in-a-thousand and a one-in-ten-thousand sample of the population of the United States. Confidentiality of the information, as required by law, has been maintained by the omission of certain identification items. Further information about any of these materials can be obtained by writing to the Chief, Population Division, Bureau of the Census.

Volume I. Characteristics of the Population. See description on page III.

Volume II (Series PC(2) reports). Subject Reports. Each report in this volume will concentrate on a particular subject. Detailed information and cross-relationships will generally be provided on a national and regional level; in a few reports data for States or standard metropolitan statistical areas will also be shown. Among the characteristics to be covered are national origin and race, fertility, families, marital status, migration, education, employment, unemployment, occupation, industry, and income. There will also be a report on the geographic distribution and characteristics of the institutional population.

Volume III (Series PC(3) reports). Selected Area Reports. This volume will contain three reports presenting, respectively, selected characteristics of the population (1) for State economic areas, and (2) according to the size of place where the individual resided, and (3) social and economic characteristics of Americans overseas.

Volume IV. Summary and Analytical Report. This report will present an analytical review of the results of the 1960 Census of Population for each major field.

Series PHC(1). Census Tract Reports. These reports present information on both population and housing subjects. There is one report for each of 180 tracted areas in the United States and Puerto Rico. The population subjects include age, race, marital status, country of origin of the foreign stock, relationship to head of household, school enrollment, years of school completed, place of residence in 1955, employment status, occupation group, industry group, place of work, means of transportation to work, and income of families, as well as certain characteristics of the nonwhite population in selected tracts. The housing subjects include tenure, color of head of household, vacancy status, condition and plumbing facilities, number of rooms, number of bathrooms, number of housing units in structure, year structure built, basement, heating equipment, number of persons in unit, persons per room, year household head moved into unit, automobiles available, value of property, and gross and contract rent, as well as certain characteristics of housing units with nonwhite household head for selected tracts. In addition, for selected tracts these reports contain data on certain population and housing subjects for persons of Puerto Rican birth or parentage and for white persons with Spanish surname. (This series is the same as the tract reports included in the publication program for the 1960 Census of Housing.)

VOLUME I

This volume consists of the parts listed below:

A. Number of Inhabitants (all areas)
1. U.S. Summary
2. Alabama
3. Alaska
4. Arizona
5. Arkansas
6. California
7. Colorado
8. Connecticut
9. Delaware
10. District of Columbia
11. Florida
12. Georgia
13. Hawaii
14. Idaho
15. Illinois
16. Indiana
17. Iowa
18. Kansas
19. Kentucky
20. Louisiana
21. Maine
22. Maryland
23. Massachusetts
24. Michigan
25. Minnesota
26. Mississippi
27. Missouri
28. Montana
29. Nebraska
30. Nevada
31. New Hampshire
32. New Jersey
33. New Mexico
34. New York
35. North Carolina
36. North Dakota
37. Ohio
38. Oklahoma
39. Oregon
40. Pennsylvania
41. Rhode Island
42. South Carolina
43. South Dakota
44. Tennessee
45. Texas
46. Utah
47. Vermont
48. Virginia
49. Washington
50. West Virginia
51. Wisconsin
52. Wyoming
53. Puerto Rico
54–57. Outlying areas (bound together)
    54. Guam
    55. Virgin Islands of the United States
    56. American Samoa
    57. Canal Zone

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Collection of data	XXXVIII
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Chapter A. Number of inhabitants (Tables 1 to 12).
Chapter B. General population characteristics (Tables 13 to 31, B–1 and B–2).
Chapter C. General social and economic characteristics (Tables 32 to 93 and C–1 to C–3).
Chapter D. Detailed characteristics (Tables 94 to 146 and D–1).

Corrections of errors discovered after the individual chapters were originally published are listed on page XLVII.

SUBJECTS INCLUDED IN THIS PUBLICATION, BY TYPE OF AREA AND TABLE NUMBER

[In order to simplify this guide, the data for certain types of areas are not indexed but instead are listed in the Note at the end of the guide; the cross-classification by sex which appears in virtually every table and the historical statistics which appear in some tables are not specified; and in only a few cases is mention made of the level of detail or the population group covered. Information on the content of other 1960 Population Census publications appears on page IV]

Subject	Type of area (see Note, below)					
	The State		Standard metropolitan statistical areas, urbanized areas, and urban places of 10,000 or more	Standard metropolitan statistical areas of 250,000 or more [1]	Counties	
	Total	Urban, rural nonfarm, and rural farm			Total	Population of 250,000 or more [2]
	Table	*Table*	*Table*	*Table*	*Table*	*Table*
Color or race	14, 15	[3] 14, [3] 15	21		28	
By other subjects—see specific subject.						
Age:						
By single years	94, *101, *102	95, *101, *102				
By color or race*	16, 17, 37, 94, 96, 97	[3] 16, 37, 95, 96	20	[1] 96	27	96
By place of birth	*98					
By residence in 1955	*100					
By year of school in which enrolled	*101	*101				
By years of school completed	*102, *103	*102, *103		*103		*103
By presence of spouse	*105	*105		*105		*105
By whether married more than once	*105	*105		*105		*105
By household relationship	*106	*106		*106		
For persons in group quarters	*107	*107		*107		
For women, by children ever born	*113	*113		*113		
For women, by number of own children under 5 years old	*114	*114		*114		
By labor force status	54, *116	54, *116	73	*116	83	
By hours worked	*115, *117	*115, *117		*115, *117		*115
By year last worked	*119	*119		[1]*119		*119
By place of work				131		
By other subjects—see specific subject.						
Nativity or parentage:						
By age	94, 96, 97	96		[1] 96		96
By color or race	38, 94, 96, 97, 99	38, 96	72	[1] 96, 99	82	96
By country of origin of the foreign stock	99			99		
Place (or State) of birth	[4] 39, *98	[4] 39	72, [5] 77		82, [5] 87	
Country of origin of the foreign stock	40, 99	40	[6] 79	99	[6] 89	
Mother tongue of the foreign born	41	41	[6] 80		[6] 90	
Residence in 1955	[4] 42, *100	[4] 42	72, [5] 77		82, [5] 87	
Year moved into present house	43	43	72		82	
School enrollment:						
By age	44, 45, *101	44, *101	73, [5] 77		83, [5] 87	
By level and type of school	46, *101	46, *101	73, [5] 77		83, [5] 87	
By color*	46	46	[5] 77		[5] 87	
Years of school completed:						
For persons 14 to 24 years old not enrolled in school	*102	*102				
For all persons of specified age	[4] 47, *103, *138	[4] 47, *103, *138	73, [5] 77	*103	83, [5] 87	*103
Veterans, civilian male	48, 104	48, 104	72		82	
Marital status:						
By color*	18	[3] 18	21		28	
By presence of spouse	*105	*105		*105		*105
By whether married more than once	*105	*105		*105		*105
By age	*105	*105		*105		*105
By labor force status	*116	*116		*116		
Married couples	[4] 50	[4] 50	72, [5] 77		82, [5] 87	
Presence of spouse	*105	*105		*105		*105
Whether married more than once	*105	*105		*105		*105
Household relationship	[4] 19, [4] 49, *106	[3,4] 19, [4] 49, *106	[4] 21	*106	[4] 28	
Group quarters, persons in	[4] 19, [4] 49, *107	[3,4] 19, [4] 49, *107	[4] 21	*107	[4] 28	
Families:						
By type of family	109, *110, *111, *112	109, *110, *111, *112	72, [5] 77	109, *110, *111, *112	82, [5] 87	
By number of own children	*108, 109	*108, 109		*108, 109		*108
By presence of own children	50, *110, *111, *112	50, *110, *111, *112	72, [5] 77	*110, *111, *112	82, [5] 87	
By number of related children	*111	*111		*111		
By size of family	*110	*110		*110		
By number of members 18 years old and over	*110	*110		*110		
By members in the labor force	*111	*111		*111		
By color or race of head*	50, 109	50, 109	[5] 77	109	[5] 87	
By marital status of head	*108	*108		*108		*108
By age of head	109, *110, *111, *112	109, *110, *111, *112		109, *110, *111, *112		
By education of head	*111	*111		*111		
By occupation of head	*112	*112		*112		
For additional items, see "Income in 1959 of families."						
Primary families	[4] 19	[3,4] 19	[4] 21		[4] 28	
Subfamilies	*108	*108		*108		*108
Secondary families	109	109				
Unrelated individuals:						
Number of (only)			72		82	
By color*	50	50	[5] 77		[5] 87	
By type	*106, *108	*106, *108		*106, *108		*108
By age	*106	*106		*106		
By marital status	*108	*108		*108		*108
For additional items, see "Income in 1959 of unrelated individuals."						
Primary individuals	[4] 19	[3,4] 19	[4] 21		[4] 28	
Fertility:						
Children ever born	[4] 51, *113	[4] 51, *113	72, [5] 77	*113	82, [5] 87	
Own children under 5 years old	*114	*114		*114		

See footnotes on next page.

SUBJECTS INCLUDED IN THIS PUBLICATION, BY TYPE OF AREA AND TABLE NUMBER—Con.

Subject	Type of area (see Note, below): The State: Total	The State: Urban, rural nonfarm, and rural farm	Standard metropolitan statistical areas, urbanized areas, and urban places of 10,000 or more	Standard metropolitan statistical areas of 250,000 or more [1]	Counties: Total	Counties: Population of 250,000 or more [2]
Employment status:	*Table*	*Table*	*Table*	*Table*	*Table*	*Table*
By employment status group (only)			73		83	
By color*	52, 53	52	[5] 77		[5] 87	
By age	*115, *117, *119	*115, *117, *119		*115, *117, [1] *119		*115, *119
By school enrollment	*117	*117		*117		
By income in 1959 of persons	137	137		137		
Labor force status	54, *116	54, *116	73	*116	83	
Hours worked	*115, *117	*115, *117		*115, *117		*115
Weeks worked in 1959:						
By weeks worked group (only)	55	55	76		86	
By age	*118	*118		[1] *118		*118
By income in 1959	136, 143	136, 143		136, 143		
Year last worked	*119, 122	*119		[1] *119, 122		*119
Occupation:						
By detailed category (only)	120, 121	121		[1] 121		121
By major or condensed group (only)	57, 58, 59, 60	57, 58, 60	74, 75		84, 85	
By color or race*	58, 60, 122	58, 60	[5] 78	122	[5] 88	
By class of worker	122			122		
For persons not in the labor force	122			122		
By year last worked	122			122		
By age	*123			*123		
By earnings in 1959 of persons	68, *124		76	*124	86	
By industry	125			125		
By place of work				[1] 131		
By income in 1959 of families	*145			*145		
Industry:						
By detailed category (only)	126, 127			[1] 127		127
By major or condensed group (only)	61, 62	61	75		85	
By occupation	125			125		
By age	128			128		
By color or race*	61, 129	61	[5] 78	129	[5] 88	
By class of worker	129			129		
By earnings in 1959 of persons	*130			*130		
By place of work				[1] 131		
By income in 1959 of families	146			146		
Class of worker:						
By occupation	122			122		
By industry	56, 129	56	74	129	84	
By place of work	132					
By earnings in 1959 of persons	132					
Place of work	[4] 63, 132	[4] 63	72, [5] 77	[1] 131	82, [5] 87	
Means of transportation to work	64	64	72	[1] 131	82	
Income in 1959 of persons:						
By income group (only)			76		86	
By color or race*	67, 133	67, 133	[5] 78	133	[5] 88	
By age	*134, 135	*134, 135		*134, 135		*134
By family status	135	135		135		
By weeks worked in 1959	136	136		136		
By employment status	137	137		137		
By years of school completed	*138	*138				
By type of income	69	69	76		86	
Income in 1959 of families:						
By income group (only)	66	66	76		86	
By color of head*	65	65	[5] 78		[5] 88	
By type of family and presence of children	*139, *140	*139, *140		*139, *140		*139
By age of head	*139	*139		*139		*139
By size of family	141	141		141		
By number of earners	*142	*142		*142		
By weeks worked in 1959 by head	143	143		143		
By work experience in 1959 of head and wife	*144	*144		*144		
By occupation of head	*145			*145		
By industry of head	146			146		
Income in 1959 of unrelated individuals:						
By income group or median income (only)	66	66	76		86	
By color*	65	65	[5,7] 78		[5,7] 88	
By type of individual	135	135		135		
By age	*139	*139		*139		*139
By earner status in 1959	*142	*142		*142		
By weeks worked in 1959	143	143		143		
Earnings in 1959 of persons:						
By occupation	68, *124		76	*124	86	
By industry	*130			*130		
By place of work	132					
By class of worker	132					

NOTE:

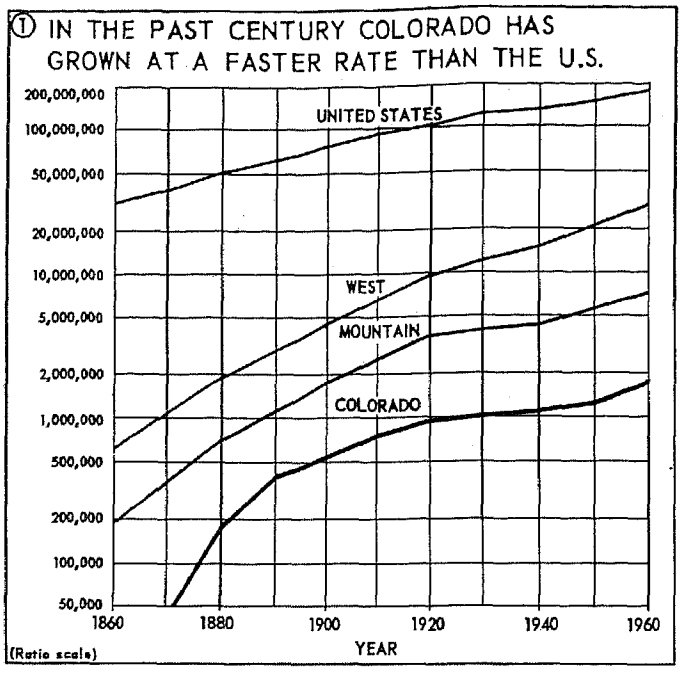
a. Data on population counts for the various areas of the State are shown in chapter A.
b. Data on age, color or race, marital status, and household relationship (or number of households) are presented for urban places of 2,500 to 10,000 in table 22; for places of 1,000 to 2,500 in tables 23 and 24; and for minor civil divisions (or census county divisions) in tables 25 and 26.
c. Data on age and race of the household population are presented for selected urban places and counties in table 31.
d. Data on nativity and parentage, years of school completed, employment status, occupation, industry, and family income are presented for places of 2,500 to 10,000 in table 81.
e. Data on age by nativity and race are presented for cities of 100,000 or more in table 96.
f. Data on single years of age for persons 5 to 24 years old are presented for cities of 250,000 or more in table 101.
g. Data on place of birth, residence in 1955, year of school in which enrolled, and years of school completed (each cross-classified by age) are presented for cities of 250,000 or more in tables 98, 100, 101, and 102, respectively.
h. Data on selected characteristics of the rural population are presented for counties in tables 29, 30, and 91; and of the rural-farm population for selected counties in tables 92 and 93.
i. Data on selected characteristics are presented by size of place in table 70 and by metropolitan-nonmetropolitan residence in table 71.
j. Summary statistics on characteristics of the population are presented for selected areas of the State in tables 13 and 32 to 36.
k. Data on nonresponse rates are presented in the appendix tables in chapters B, C, and D.

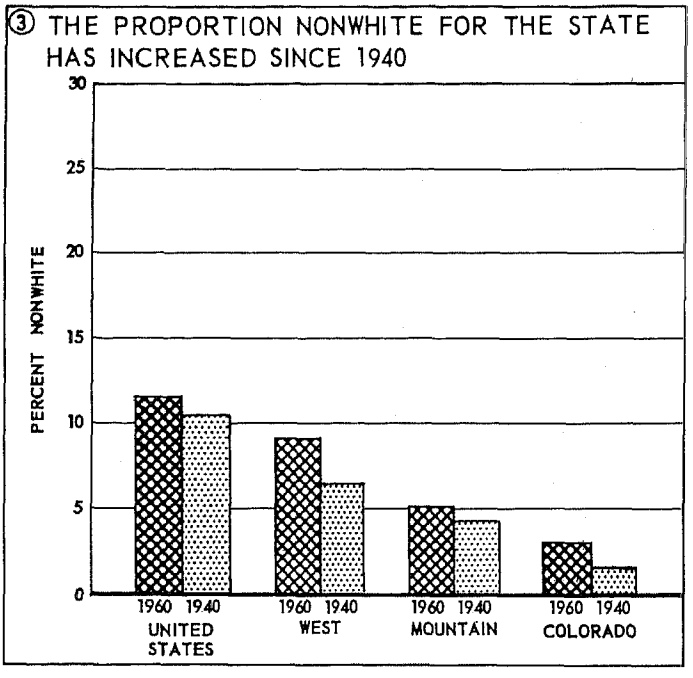
*Separate data for nonwhites in those areas with 25,000 or more nonwhites appear in tables marked with an asterisk. For the urban, rural-nonfarm, and rural-farm parts of States, such data are shown only for the South.

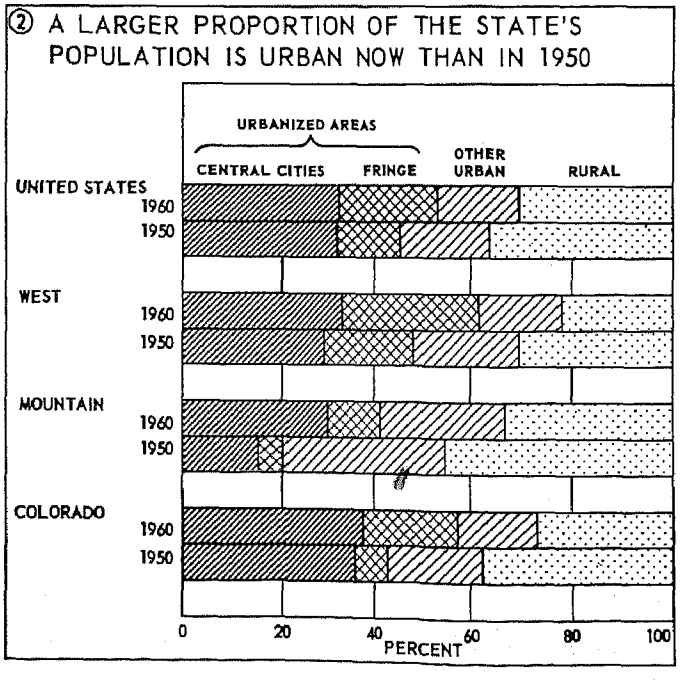
[1] Data in tables 96, 118, 119, 121, 127, and 131 are for SMSA's of 100,000 or more.
[2] Outside New England States, and excluding counties which are coextensive with an SMSA.
[3] Urban by size of place; rural not by farm-nonfarm residence.
[4] Includes data by color.
[5] Data for nonwhites in areas with 1,000 or more nonwhite persons.
[6] For areas with 1,000 or more persons of specified type.
[7] Median income of families and unrelated individuals combined.

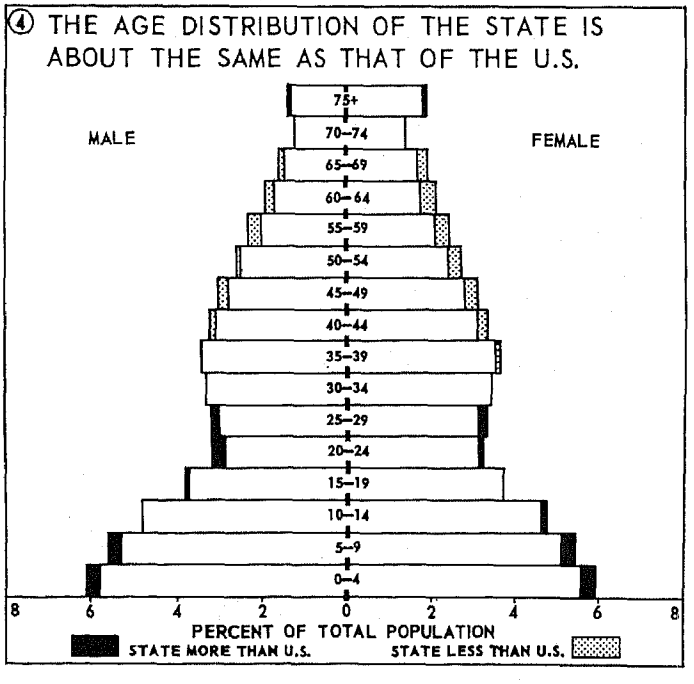
COLORADO

1960 Census of Population — Graphic Summary



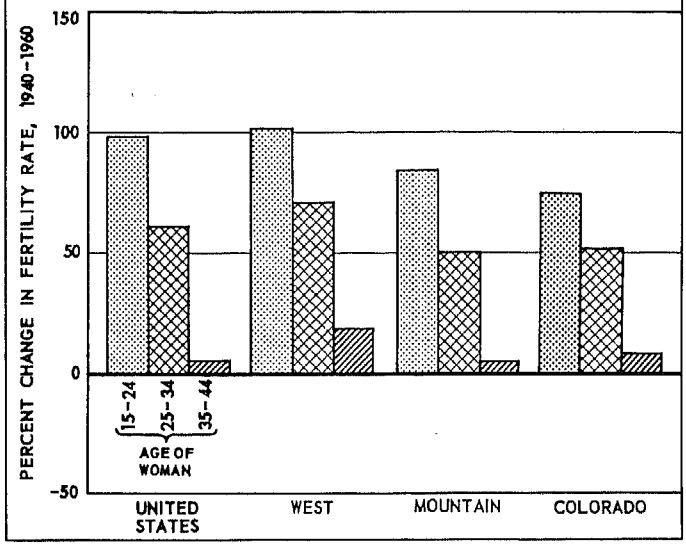




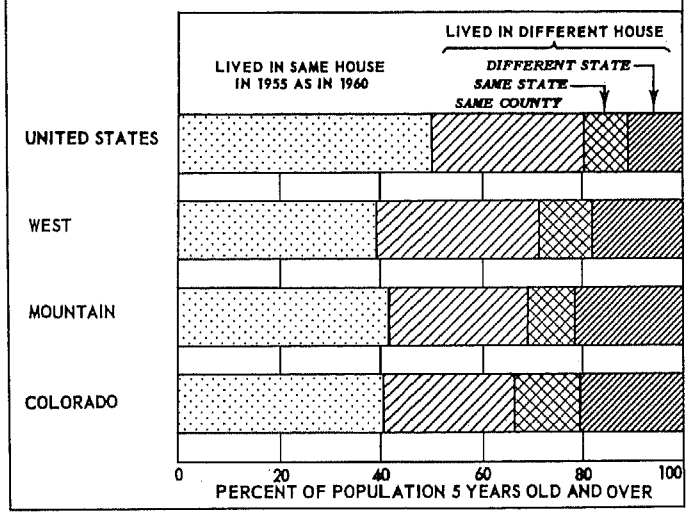


Note: The 1960 Census geographic classification divides the country into four regions and nine divisions, as follows: Northeast region – New England division (Maine, N. H., Vt., Mass., R. I., and Conn.) and Middle Atlantic (N. Y., N. J., and Pa.); North Central – East North Central (Ohio, Ind., Ill., Mich., and Wis.) and West North Central (Minn., Iowa, Mo., N. Dak., S. Dak., Nebr., and Kans.); South – South Atlantic (Del., Md., D. C., Va., W. Va., N. C., S. C., Ga., and Fla.), East South Central (Ky., Tenn., Ala., and Miss.) and West South Central (Ark., La., Okla., and Tex.); and West – Mountain (Mont., Idaho, Wyo., Colo., N. Mex., Ariz., Utah, and Nev.) and Pacific (Wash., Oreg., Calif., Alaska, and Hawaii). In figures 1, 2, 3, and 5, the pre-1960 data refer, insofar as possible, to the present area of the United States, region, division, and State. In figure 5, fertility rate is the number of children ever born per 1,000 women in the specified age group; in States with fewer than 25,000 nonwhite women 15 to 49 years old in 1940, the 1940 rates refer to white women only. In figure 6, the data refer to persons five years old and over reporting this item; the category "Different State" includes persons living abroad five years prior to the census date. In figure 9, the base for the percent excludes employed persons with occupation not reported. White collar workers include the professional, managerial (nonfarm), clerical, and sales major occupation groups; blue collar workers include the craftsman, operative, private household, service, and nonfarm laborer groups; and farm workers include the farmer and farm laborer groups.

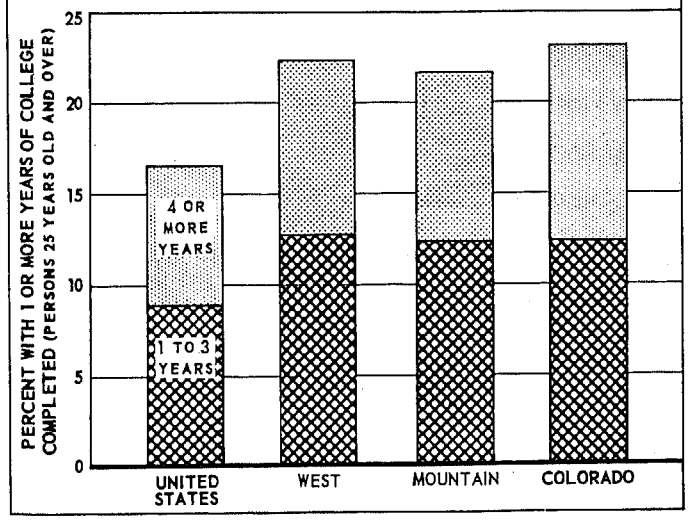
⑤ THE FERTILITY RATE FOR YOUNGER WOMEN HAS INCREASED GREATLY SINCE 1940



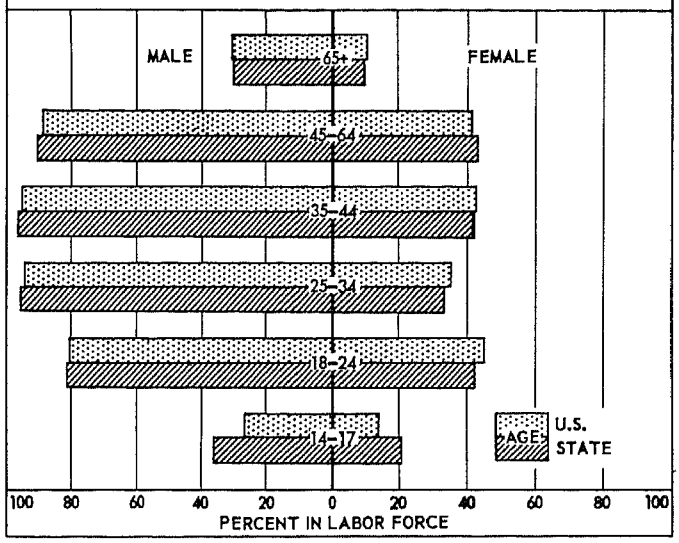
⑥ ONE-FIFTH OF COLORADO'S 1960 POPULATION LIVED OUTSIDE THE STATE IN 1955



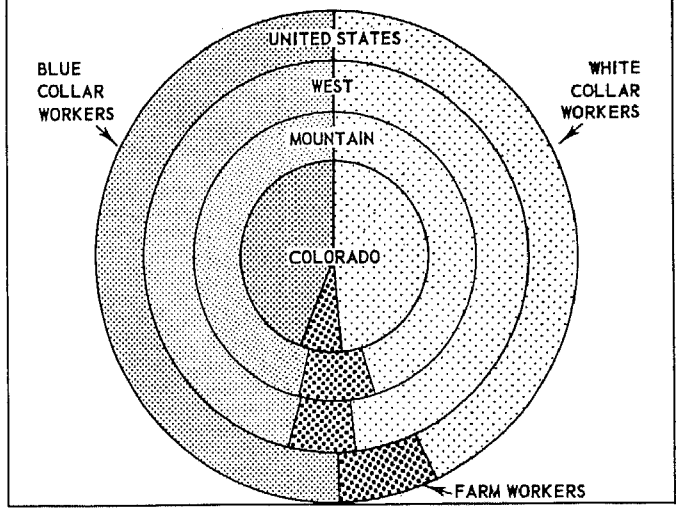
⑦ THE STATE'S PROPORTION OF ADULTS WHO COMPLETED ONE OR MORE YEARS OF COLLEGE IS HIGHER THAN THE U.S. AVERAGE



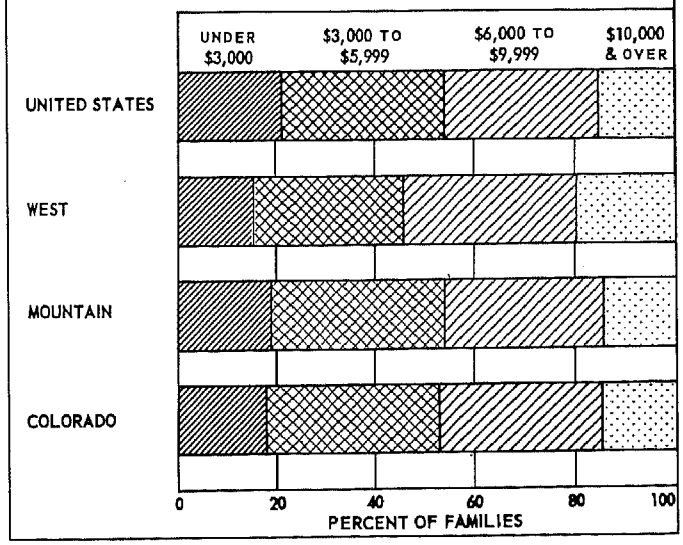
⑧ ABOUT 42 PERCENT OF THE STATE'S WOMEN AGED 18 TO 24 ARE IN THE LABOR FORCE



⑨ ALMOST HALF OF THE STATE'S EMPLOYED WORKERS ARE IN WHITE-COLLAR OCCUPATIONS



⑩ FAMILY INCOMES IN THE STATE ARE ABOUT THE SAME AS THE NATIONAL AVERAGE



Characteristics of the Population

GENERAL

This report presents the major portion of the information compiled from the 1960 Census of Population for this State. It contains the four chapters, A, B, C, and D, previously published as paper-bound reports in the PC(1)-A, PC(1)-B, PC(1)-C, and PC(1)-D series of the 1960 Census of Population. The statistics in chapters A and B are from the complete count whereas those in chapters C and D are from the 25-percent sample of the population.

Chapter A, "Number of Inhabitants," comprises tables 1 to 12 and furnishes statistics on the number of persons in the State and its counties or comparable areas. In addition, data are presented for minor civil divisions (townships, New England towns, etc.), or census county divisions, urban places, incorporated places (cities, boroughs, villages, etc.), urbanized areas, standard metropolitan statistical areas (SMSA's) and for the population of the State and its counties or comparable areas classified by urban-rural residence.

Chapter B, "General Population Characteristics," comprises tables 13 to 31 and presents the basic demographic statistics on age, sex, race, relationship to head of household, and marital status. The amount of detail presented is generally greater for larger places than for smaller ones, and data from earlier censuses are usually only included for larger areas. Maximum detail is shown for the State and its urban and rural parts and for SMSA's, urbanized areas, urban places of 10,000 or more, and counties. Somewhat less detail is shown for urban places of 2,500 to 10,000, for rural parts of counties, and for the rural population of counties outside places of 1,000 to 2,500. The least amount of detail is shown for places of 1,000 to 2,500 and for minor civil divisions or census county divisions.

Chapter C, "General Social and Economic Characteristics," comprises tables 32 to 93 and presents inventory statistics on social and economic characteristics. The characteristics shown are farm-nonfarm residence, nativity and parentage, State of birth of the native population, country of origin of the foreign stock, mother tongue of the foreign born, residence in 1955, year moved into present house, school enrollment, year and type of school (public or private) in which enrolled, years of school completed, veteran status of civilian males, married couples and families, number of children ever born, employment status, weeks worked in 1959, class of worker, occupation group, industry group, place of work, means of transportation to work, income in 1959 of persons and of families and unrelated individuals, earnings in 1959, and type of income in 1959.

Most of the 1960 statistics shown in chapter C for the total population in the State and its urban and rural parts are also shown separately for the white and nonwhite population in those areas. Moreover, statistics on most of the subjects are shown for the nonwhite population in each SMSA, urbanized area, urban place of 10,000 or more, and county with 1,000 or more nonwhite persons. In addition, statistics on age, sex, and household relationship are shown for counties with a rural-farm nonwhite population of 400 or more persons. Statistics on country of origin of the foreign stock in areas within the State are shown only where there were 1,000 persons or more in this category. Likewise, statistics on mother tongue of foreign-born persons in areas below the State level are shown only where there were 1,000 or more persons in this category. As in chapter B, the amount of detail presented is greater for the areas with a larger population than areas with a smaller population.

Chapter D, "Detailed Characteristics," comprises tables 94 to 146, and completes the presentation of information for this State in Volume I. It shows detailed categories and cross-classifications (generally by age) on the social and economic characteristics of the inhabitants of this State. This chapter contains data on all the subjects treated in chapter C, except mother tongue of the foreign born and year moved into present house. It also includes data on whether married more than once, hours worked, and year last worked.

Although information on the five population items—age, sex, race, relationship to head of household, and marital status—was collected on a complete-count basis, the data on these items shown in chapters C and D are based only on persons in the sample.

Because of the amount of detail and cross-classification in the tables, the presentation in chapter D is restricted to the larger areas, namely, States, the urban and rural parts of States, the larger counties, SMSA's, and cities. Most of the data for counties, SMSA's, and cities in this chapter are for areas of 250,000 or more although a few tabulations are presented for SMSA's and cities of 100,000 or more. In general, data for the nonwhite population are shown separately for any of these areas containing 25,000 nonwhite persons or more. Historical comparisons are limited to 1950 data and are presented only for the State as a whole.

More detailed cross-classifications of many of these characteristics will be presented in the subject reports of Volume II. In some cases, a few tables for States and other large areas will also be included.

A list of the subjects included in this report, showing the type of area and the tables in which they appear, is presented on pages VI and VII.

Maps of this State, showing the composition of urbanized areas and county subdivisions, are presented in chapter A. Also, a map of the State indicating counties, places of 25,000 or more, and SMSA's is presented in chapters A, B, and C.

In general, medians are computed from the class intervals shown in the tables in which they appear. Hence, medians shown in one table may differ from the corresponding medians in other tables where a different number of class intervals is shown. The medians shown with the distributions by single years of age which appear in tables 94 and 95, however, are based on 5-year age groups.

COLLECTION AND PROCESSING PROCEDURES

Sampling was used in the 1960 Census, as well as in the 1950 and 1940 Censuses, to supplement the information obtained from the enumeration of the total population. The population in the sample in 1960 comprised the members of every fourth household and every fourth person who was not a member of a household, i.e., who was living in "group quarters." Later sections discuss the sample design, the methods used to inflate the sample figures, and the accuracy of the sample data. Text tables give estimates of sampling variability.

The 1960 Census was the first in which self-enumeration was used on a nationwide scale. A questionnaire, entitled "Advance Census Report," was mailed to every household in the country. The instructions on the ACR requested that one or more of the members enter on the form the answers to all the questions for each person in the household. The enumerator was instructed to correct omissions and obviously wrong entries by asking the necessary questions. In the sparsely populated areas (with 65 percent of the land area and 18 percent of the population), the enumerator collected the complete-count information and also asked the sample questions at the time of his visit; these are referred to below as the "single stage" enumeration areas. In the rest of the United States, where most of the population lives, the enumerator collected the complete-count information and also left with each sample household, for mailing to the local census office, a Household Questionnaire containing the sample questions to be answered; these areas are referred to below as the "two stage" areas. The partial substitution of self-enumeration for the traditional direct interview has probably affected the nature and extent of errors in the 1960 statistics relative to those in the statistics of earlier censuses. More comprehensive and definitive accounts of the nature and effects of this and other innovations in the 1960 Census procedures will be given in later reports.

The enumerators inspected and copied the answers from the Advance Census Reports and Household Questionnaires to specially designed complete-count and sample forms, respectively, especially designed for electronic processing. Later, at the central processing office in Jeffersonville, Ind., selected items were coded and all of the information was microfilmed. The microfilm was then sent to Washington, where the information was transformed by FOSDIC (Film Optical Sensing Device for Input to Computer) into coded signals on magnetic tape. This tape, in turn, was processed by an electronic computer and related equipment to produce the tables.

The definitions of terms which are given below are consistent with the instructions given to the enumerators and to the field office personnel who reviewed the questionnaires. As in all censuses and surveys, however, there were some failures to execute these instructions exactly. The partial use of self-enumeration made it feasible to call the attention of respondents more uniformly in the 1960 Census than in prior censuses to some of the important inclusions and exclusions in the definitions. However, it was not feasible to give detailed instructions to the respondents, and some of their errors of understanding and reporting have undoubtedly gone undetected. A few types of known or suspected inaccuracies in the data arising from failure to apply the definitions correctly are noted in this text.

The processing of census returns regularly involves the coding of numerous items—such as detailed relationship to head of household, State of birth, and occupation—and the editing of schedules for omissions and inconsistencies. In the 1960 Census, much of the editing was done by the electronic computer, whereas in prior censuses this work had been done largely as a clerical operation. It is believed that this heavy reliance on electronic equipment has improved the quality of the editing but, at the same time, has introduced an element of difference between the 1960 statistics and those of earlier years.

CURRENT POPULATION SURVEY

Data on many of the subjects covered in this report are collected monthly or annually for the United States as a whole by the Bureau of the Census through its Current Population Survey (CPS). This nationwide survey, covering a sample of about 35,000 interviewed households, provides monthly data on employment which are published by the Bureau of Labor Statistics. The CPS also provides data on income which are published annually by the Bureau of the Census (in Series P–60 reports) and data on migration, education, families, fertility, and other subjects issued annually or less frequently (in Series P–20 reports). This survey provides more limited statistics for regions, but statistics for the State or smaller areas, which are featured in the present report, have not been tabulated from the CPS.

Certain differences exist between the levels of the national data from the CPS and from the 1960 and 1950 Censuses. The reasons for the differences include the more extensive training, control, and experience of the CPS enumerators than of the census enumerators; the use of hourly rate payments in the CPS and of piece-rate payments in the census; differences in the extent to which self-enumeration is used; differences in the question wording on some of the items, in the time of year to which the data apply (as for the annual school enrollment figures collected in the October CPS), and in coverage (the CPS covering only the civilian noninstitutional population in months other than March); enumeration of unmarried college students in the CPS at their parental home but in the census at their residence while attending college; differences in the methods used to process the original data into statistical tables; differences in the weighting procedure and in noninterview rates; and differences between the sampling variability in the CPS and in the 25-percent sample in the census. The differences for some of the specific population characteristics are discussed below.

COMPARABILITY OF COMPLETE-COUNT AND SAMPLE DATA

For the characteristics covered on a complete-count basis in chapter B (i.e., sex, race, age, marital status, household relationship, and related items), chapters C and D present comparable 25-percent sample statistics. A comparison of selected complete-count and sample statistics is given in table A. The reasons for the differences (which result from processing differences and sampling) are discussed in Part 1 of this volume.

SOURCES OF HISTORICAL DATA

Most of the statistics for 1950 shown in chapters C and D are based on a 20-percent sample. The following are exceptions. The figures for foreign-born persons, in the distribution of the foreign white stock by country of origin, are based on a complete count (whereas the figures on native persons of foreign or mixed parentage are based on the 20-percent sample). Statistics for families and those for married couples without their own households living with nonrelatives are based on Sample F. (Income data for families, however, are based on the 20-percent sample.) Fertility statistics for women ever married 15 to 44 years old are based on Sample C. Nationally, Samples F and C covered about 2.4 percent of the families and women 15 years old and over, respectively. Statistics for 1950 on unrelated individuals in table 106 are partially based on Sample F; statistics on employment status (except labor force status by age), occupation, industry, and class of worker are from complete counts. For Alaska, all 1950 figures are based on a complete count. For Hawaii, 1950 figures on the following subjects are also based on a complete count: State of birth of the native population, race and nativity, marital status, presence of spouse and whether married more than once, and relationship to head of household.

Statistics for 1940 are based on complete counts with the following exceptions. Those on the native population of foreign

Table A.—COMPARISON OF COMPLETE-COUNT AND SAMPLE DATA FOR SELECTED CHARACTERISTICS, FOR THE STATE, URBAN AND RURAL: 1960

[Selected characteristics are those for which complete-count and sample data are available. Minus sign (−) indicates sample lower than complete count. Percent not shown where less than 0.1 or where base is less than 200]

Subject	The State				Urban				Rural			
	Complete count	Sample	Difference		Complete count	Sample	Difference		Complete count	Sample	Difference	
			Number	Per-cent			Number	Per-cent			Number	Per-cent
SEX												
Total population	1,753,947	1,753,925	-22	...	1,292,790	1,292,768	-22	...	461,157	461,157	...	...
Male	870,467	870,349	-118	...	631,163	631,300	137	...	239,304	239,049	-255	-0.1
Female	883,480	883,576	96	...	661,627	661,468	-159	...	221,853	222,108	255	0.1
COLOR AND AGE												
Total, all ages	1,753,947	1,753,925	-22	...	1,292,790	1,292,768	-22	...	461,157	461,157	...	...
Under 5 years	209,108	209,075	-33	...	153,798	153,808	10	...	55,310	55,267	-43	-0.1
5 to 9 years	193,204	193,789	585	0.3	139,212	139,323	111	0.1	53,992	54,466	474	0.9
10 to 14 years	166,746	166,929	183	0.1	117,240	117,711	471	0.4	49,506	49,218	-288	-0.6
15 to 19 years	130,726	131,581	855	0.7	92,734	93,224	490	0.5	37,992	38,357	365	1.0
20 to 24 years	112,197	111,748	-449	-0.4	85,651	85,320	-331	-0.4	26,546	26,428	-118	-0.4
25 to 29 years	112,678	112,129	-549	-0.5	86,469	85,942	-527	-0.6	26,209	26,187	-22	-0.1
30 to 34 years	119,175	120,330	1,155	1.0	90,755	91,324	569	0.6	28,420	29,006	586	2.1
35 to 39 years	121,999	121,460	-539	-0.4	92,489	92,070	-419	-0.5	29,510	29,390	-120	-0.4
40 to 44 years	110,016	109,974	-42	...	81,795	82,234	439	0.5	28,221	27,740	-481	-1.7
45 to 49 years	99,165	99,713	548	0.6	72,297	72,498	201	0.3	26,868	27,215	347	1.3
50 to 54 years	85,776	86,266	490	0.6	62,630	62,609	-21	...	23,146	23,657	511	2.2
55 to 59 years	72,875	73,922	1,047	1.4	53,187	53,628	441	0.8	19,688	20,294	606	3.1
60 to 64 years	62,122	61,744	-378	-0.6	45,824	45,837	13	...	16,298	15,907	-391	-2.4
65 to 74 years	100,731	99,751	-980	-1.0	74,747	74,425	-322	-0.4	25,984	25,326	-658	2.5
75 years and over	57,429	55,514	-1,915	-3.3	43,962	42,815	-1,147	-2.6	13,467	12,699	-768	-5.7
Median age.....years	27.9	27.8	...	...	28.3	28.3	...	...	26.4	26.3	...	...
White, all ages	1,700,700	1,700,250	-450	...	1,246,787	1,246,416	-371	...	453,913	453,834	-79	...
Under 5 years	201,083	200,735	-348	-0.2	146,980	146,699	-281	-0.2	54,103	54,036	-67	-0.1
5 to 9 years	186,724	187,193	469	0.3	133,676	133,740	64	...	53,048	53,453	405	0.8
10 to 14 years	162,228	162,563	335	0.2	113,317	113,950	633	0.6	48,911	48,613	-298	-0.6
15 to 19 years	127,101	128,026	925	0.7	89,755	90,238	483	0.5	37,346	37,788	442	1.2
20 to 24 years	108,076	107,766	-310	-0.3	82,226	82,027	-199	-0.2	25,850	25,739	-111	-0.4
25 to 29 years	108,060	107,561	-499	-0.5	82,532	82,022	-510	-0.6	25,528	25,539	11	...
30 to 34 years	114,735	115,867	1,132	1.0	86,928	87,509	581	0.7	27,807	28,358	551	2.0
35 to 39 years	117,995	117,429	-566	-0.5	88,967	88,514	-453	-0.5	29,028	28,915	-113	-0.4
40 to 44 years	106,928	106,814	-114	-0.1	79,064	79,505	441	0.6	27,864	27,309	-555	-2.0
45 to 49 years	96,757	97,254	497	0.5	70,108	70,239	131	0.2	26,649	27,015	366	1.4
50 to 54 years	83,958	84,515	557	0.7	60,969	61,002	33	0.1	22,989	23,513	524	2.3
55 to 59 years	71,267	71,998	731	1.0	51,726	51,886	160	0.3	19,541	20,112	571	2.9
60 to 64 years	60,766	60,327	-439	-0.7	44,606	44,538	-68	-0.2	16,160	15,789	-371	-2.3
65 to 74 years	98,691	97,730	-961	-1.0	72,930	72,648	-282	-0.4	25,761	25,082	-679	-2.6
75 years and over	56,331	54,472	-1,859	-3.3	43,003	41,899	-1,104	-2.6	13,328	12,573	-755	-5.7
Median age.....years	28.0	28.0	...	...	28.5	28.4	...	...	26.5	26.4	...	...
Nonwhite, all ages	53,247	53,675	428	0.8	46,003	46,352	349	0.8	7,244	7,323	79	1.1
Under 5 years	8,025	8,340	315	3.9	6,818	7,109	291	4.3	1,207	1,231	24	2.0
5 to 9 years	6,480	6,596	116	1.8	5,536	5,583	47	0.8	944	1,013	69	7.3
10 to 14 years	4,518	4,366	-152	-3.4	3,923	3,761	-162	-4.1	595	605	10	1.7
15 to 19 years	3,625	3,555	-70	-1.9	2,979	2,986	7	0.2	646	569	-77	-11.9
20 to 24 years	4,121	3,982	-139	-3.4	3,425	3,293	-132	-3.9	696	689	-7	-1.0
25 to 29 years	4,618	4,568	-50	-1.1	3,937	3,920	-17	-0.4	681	648	-33	-4.8
30 to 34 years	4,440	4,463	23	0.5	3,827	3,815	-12	-0.3	613	648	35	5.7
35 to 39 years	4,004	4,031	27	0.7	3,522	3,556	34	1.0	482	475	-7	-1.5
40 to 44 years	3,088	3,160	72	2.3	2,731	2,729	-2	-0.1	357	431	74	20.7
45 to 49 years	2,408	2,459	51	2.1	2,189	2,259	70	3.2	219	200	-19	-8.7
50 to 54 years	1,818	1,751	-67	-3.7	1,661	1,607	-54	-3.3	157	144	-13	...
55 to 59 years	1,608	1,924	316	19.7	1,461	1,742	281	19.2	147	182	35	...
60 to 64 years	1,356	1,417	61	4.5	1,218	1,299	81	6.7	138	118	-20	...
65 to 74 years	2,040	2,021	-19	-0.9	1,817	1,777	-40	-2.2	223	244	21	9.4
75 years and over	1,098	1,042	-56	-5.1	959	916	-43	-4.5	139	126	-13	...
Median age.....years	24.8	25.0	...	...	25.4	25.6	...	...	21.7	21.8	...	...
MARITAL STATUS												
Total, 14 and over	1,211,369	1,211,350	-19	...	900,638	900,589	-49	...	310,731	310,761	30	...
Single	254,196	251,721	-2,475	-1.0	187,175	186,390	-785	-0.4	67,021	65,331	-1,690	-2.5
Married	830,013	834,098	4,085	0.5	610,568	611,983	1,415	0.2	219,445	222,115	2,670	1.2
Separated	15,078	15,128	50	0.3	12,684	12,812	128	1.0	2,394	2,316	-78	-3.3
Widowed	88,245	86,444	-1,801	-2.0	70,052	69,057	-995	-1.4	18,193	17,387	-806	-4.4
Divorced	38,915	39,087	172	0.4	32,843	33,159	316	1.0	6,072	5,928	-144	-2.4
RELATIONSHIP												
Population in households	1,697,234	1,697,916	682	...	1,247,816	1,248,176	360	...	449,418	449,740	322	0.1
Head of household	529,424	529,419	-5	...	399,248	399,243	-5	...	130,176	130,176	...	...
Head of primary family	434,282	438,060	3,778	0.9	321,358	323,371	2,013	0.6	112,924	114,689	1,765	1.6
Primary individual	95,142	91,359	-3,783	-4.0	77,890	75,872	-2,018	-2.6	17,252	15,487	-1,765	-10.2
Wife of head	390,277	392,146	1,869	0.5	286,178	286,802	624	0.2	104,099	105,344	1,245	1.2
Child under 18 of head	614 835	618,849	4,014	0.7	440,717	442,892	2,175	0.5	174,118	175,957	1,839	1.1
Other relative of head	134,743	133,072	-1,671	-1.2	98,155	98,336	181	0.2	36,588	34,736	-1,852	-5.1
Nonrelative of head	27,955	24,430	-3,525	-12.6	23,518	20,903	-2,615	-11.1	4,437	3,527	-910	-20.5
Population in group quarters	56,713	56,009	-704	-1.2	44,974	44,592	-382	-0.8	11,739	11,417	-322	-2.7

or mixed parentage in the distribution of the foreign white stock by country of origin, and those on mother tongue of the foreign-born white, are based on a 5-percent sample. Fertility statistics for women 15 to 44 years old are based on Sample C; nationally, this sample covered about 3.3 percent of the women.

Statistics for census dates before 1940 are from complete counts, except that fertility statistics for women 15 to 44 years old for 1910 are based on an 8.9-percent sample. (For further explanations of sample historical data, see publications of the 1950 and 1940 Censuses, especially *U.S. Census of Population: 1950*, Vol. IV, *Special Reports*, Part 2, chapter A, General Characteristics of Families, and Part 5C, Fertility.)

CHANGES IN DEFINITIONS

The definitions of the major concepts used in the 1960 Census of Population are given below. A few of the definitions used in 1960 differ from those used in 1950. These changes were made after consultation with users of census data and were made in order to improve the statistics, even though it was recognized that comparability would be affected. In some cases the new definitions were tested by the Bureau of the Census in connection with its Current Population Survey and census pretests, and, where feasible, measures of the impact of the change on the statistics were developed.

AREA CLASSIFICATIONS

USUAL PLACE OF RESIDENCE

In accordance with census practice dating back to 1790, each person enumerated in the 1960 Census taken as of April 1, 1960, was counted as an inhabitant of his usual place of abode, which is generally construed to mean the place where he lives and sleeps most of the time. This place is not necessarily the same as his legal residence, voting residence, or domicile. Although there may be appreciable differences for a few areas, in the vast majority of cases the use of these different bases of classification would produce substantially the same statistics.

In the application of this rule, persons were not always counted as residents of the places in which they happened to be found by the census enumerators. Persons in the larger hotels, motels, and similar places were enumerated on the night of March 31, and those whose usual place of residence was elsewhere were allocated to their homes. In addition, information on persons away from their usual place of residence was obtained from other members of their families, landladies, etc. If an entire family was expected to be away during the whole period of the enumeration, information on the family was obtained from neighbors. A matching process was used to eliminate duplicate reports for a person who reported for himself while away from his usual residence and who was also reported at his usual residence by someone else.

Persons in the Armed Forces quartered on military installations were enumerated as residents of the States, counties, and county subdivisions in which their installations were located. Members of their families were enumerated where they actually resided. As in 1950, college students were considered residents of the communities in which they were residing while attending college. The crews of vessels of the U.S. Navy and of the U.S. merchant marine in harbors of the United States were counted as part of the population of the ports in which their vessels were berthed on April 1, 1960. Inmates of institutions, who ordinarily live there for long periods of time, were counted as inhabitants of the place in which the institution was located, whereas patients in general hospitals, who ordinarily remain for short periods of time, were counted at, or allocated to, their homes. Persons without a usual place of residence were counted where they were enumerated.

Persons staying overnight at a mission, flophouse, jail, detention center, reception and diagnostic center, or other similar place on a specified night (for example, April 8 in some areas) were enumerated on that night as residents of that place.

Americans who were overseas for an extended period (in the Armed Forces, working at civilian jobs, studying in foreign universities, etc.) are not included in the population of any of the States or the District of Columbia. On the other hand, persons temporarily abroad on vacations, business trips, and the like were enumerated at their usual residence on the basis of information received from members of their families or from neighbors.

URBAN-RURAL RESIDENCE

The population of the State by urban-rural residence is shown in table 1 and for counties, or comparable areas, in table 6.

In general, the urban population comprises all persons living in urbanized areas and in places of 2,500 inhabitants or more outside urbanized areas. More specifically, according to the definition adopted for use in the 1960 Census, the urban population comprises all persons living in (*a*) places of 2,500 inhabitants or more incorporated as cities, boroughs, villages, and towns (except towns in New England, New York, and Wisconsin); (*b*) the densely settled urban fringe, whether incorporated or unincorporated, of urbanized areas (see section below); (*c*) towns in New England and townships in New Jersey and Pennsylvania which contain no incorporated municipalities as subdivisions and have either 25,000 inhabitants or more or a population of 2,500 to 25,000 and a density of 1,500 persons or more per square mile; (*d*) counties in States other than the New England States, New Jersey, and Pennsylvania that have no incorporated municipalities within their boundaries and have a density of 1,500 persons or more per square mile; and (*e*) unincorporated places of 2,500 inhabitants or more (see section on "Places").

This definition of urban is substantially the same as that used in 1950; the major difference between 1950 and 1960 is the designation in 1960 of urban towns in New England and of urban townships in New Jersey and Pennsylvania. The effect on population classification arising from this change was actually small because, in 1950, most of the population living in such places was classified as urban by virtue of residence in an urbanized area or in an unincorporated urban place. (See sections below.) In the definition used prior to 1950, the urban population comprised all persons living in incorporated places of 2,500 inhabitants or more and areas (usually minor civil divisions) classified as urban under somewhat different special rules relating to population size and density. In all definitions, the population not classified as urban constitutes the rural population. In the tables presenting the population by urban-rural residence, the "current" urban definition refers to the population classified in accordance with the definitions used in 1950 and 1960. The "previous" urban definition refers to the definition used prior to 1950.

The most important component of the urban territory in both definitions is the group of incorporated places having 2,500 inhabitants or more. A definition of urban territory restricted to such places, however, excludes a number of equally large and densely settled places merely because they are not incorporated places. Under the definition used previous to 1950, an effort was made to avoid some of the more obvious omissions by the inclusion of selected places which were classified as urban under special rules. Even with these rules, however, many large and closely built-up places were excluded from the urban territory.

To improve its measure of urban population, the Bureau of the Census adopted, in 1950, the concept of the urbanized area

and defined the larger unincorporated places as urban. All the population residing in the urban-fringe areas and in unincorporated places of 2,500 or more is classified as urban, according to the current definition. The urban towns, townships, and counties, as defined for the 1960 Census, are somewhat similar in concept to the minor civil divisions classified as urban under special rules in 1940 and 1930.

For the convenience of those interested in the historical trend of the urban and rural population, the 1950 and 1960 population figures are shown on the basis of both the "current" definition and the "previous" definition. Although the Bureau of the Census had employed other definitions of "urban" in prior years, the urban and rural population figures published here as according to the "previous" definition have been revised to present a substantially consistent series.

FARM-NONFARM RESIDENCE

Definitions

The rural population is subdivided into the rural-farm population, which comprises all rural residents living on farms, and the rural-nonfarm population, which comprises the remaining rural population. In the 1960 Census, the farm population includes persons living in rural territory on places of 10 or more acres from which sales of farm products amounted to $50 or more in 1959 or on places of less than 10 acres from which sales of farm products amounted to $250 or more in 1959. Through an error in computer programing, the small number (29,873 for the United States) of farm residents in workers' camps (including quarters for migratory agricultural workers) were erroneously classified as nonfarm in the chapter C tables but were correctly classified as farm residents in chapter D. Persons in all other types of group quarters were properly classified as nonfarm.

Farm residence in accordance with this definition was determined from answers to the following questions on the Household Questionnaire:

H17 and H18. Is this house:

On a city lot (or is this an apartment building)? ..... ☐

OR

On a place of less than 10 acres? ..... ☐ → Last year (1959), did sales of crops, livestock, and other farm products from this place amount to $250 or more?

$250 or more ..... ☐

Less than $250 or none ... ☐

OR

On a place of 10 or more acres? ..... ☐ → Last year (1959), did sales of crops, livestock, and other farm products from this place amount to $50 or more?

$50 or more ..... ☐

Less than $50 or none .... ☐

If the reported value of sales was at least the amount specified for that size of place, the household was classified as living on a farm. Other persons in rural territory, including those living on "city lots," were classified as nonfarm residents. Persons were also classified as nonfarm if their household paid rent for the house but their rent did not include any land used for farming.

Sales of farm products refer to the gross receipts from the sale of field crops, vegetables, fruits, nuts, livestock and livestock products (milk, wool, etc.), poultry and poultry products, and nursery and forest products produced on the place and sold at any time during 1959.

Comparability

Earlier censuses of population.—Farm-nonfarm residence in 1950 was determined by respondents' answers to the question, "Is this house on a farm (or ranch)?" The instructions to the enumerators specified that "persons on farms who paid cash rent for this house and yard only are to be classified as nonfarm." In 1950 and 1960, persons living in group quarters on institutional grounds or in summer camps or motels were classified as nonfarm residents. The definition adopted for 1960 employs more restrictive criteria than the 1950 definition. One reason for the change was to make the definition of farm residence essentially consistent with the definition of a farm used in the agricultural census beginning with the 1959 Census of Agriculture. The net effect of the 1960 definition is to exclude from the farm population persons living on places considered farms by the occupants but from which agricultural products are not sold or from which sales are below the specified minimum. In previous censuses, farm-nonfarm residence was determined in cities and other territory classified as urban, but in 1960 no effort was made to identify farm population in urban areas. In 1950, this urban-farm population amounted to only about 300,000 persons in the country as a whole.

1959 Census of Agriculture.—According to the 1960 Census of Population, the rural-farm population numbered 13.4 million and rural-farm households numbered 3.6 million. According to the 1959 Census of Agriculture, there were 3.7 million farms and an estimated 3.4 million farm operators living on the farms they operated. The number of rural-farm households was 3.9 percent below the number of farms but 4.0 percent above the estimated number of farmers living on the farms they operated. Even if there had been no errors of enumeration, the number of farm households from the Census of Population would not equal exactly either the number of farms or the number of operators living on farms operated. The Census of Agriculture, for example, includes farms in urban territory. Moreover, there are two or more households on some farms and no resident households on other farms. In addition, the absence of a resident operator does not preclude the presence of a household, for example, that of a farm hand. Finally, the Census of Agriculture was taken in the fall of 1959, and evidence from other sources suggests that there was a decline in the number of farm residents between the time of this enumeration and that of the Census of Population.

Current Population Survey.—A test conducted in the CPS of April 1960 indicated that at that time the change in the definition of the farm population resulted in a net reduction of 4.2 million persons on farms, representing about 21 percent of the farm population under the old definition. The farm population of 15.7 million under the new definition indicated by the CPS, however, was 2.3 million greater than the 1960 Census count, 13.4 million. This discrepancy between the census and the CPS figures may be the result of the effect of several factors.

Although there is no conclusive evidence on the relative validity of the farm-nonfarm classification in the CPS as compared with that in the census, the difference between the CPS and census procedures already noted (see "Current Population Survey," above) must be taken into consideration in evaluating the figure, 2.3 million. There is also a difference between the definition of urban territory in the census and in the CPS. In the CPS of

1960, the boundaries of urban areas used were still those of the 1950 Census and did not include the annexations and other substantial expansions of urban territory that were incorporated in the 1960 Census. In the 1960 Census, the determination of farm residence was limited to rural territory as defined in 1960. The effect of this difference was to classify an unknown number of persons as rural farm in the CPS who are treated as urban in the reports of the 1960 Census.

COUNTIES

Except as noted below, the primary divisions of the States are called counties. In Louisiana these divisions are known as parishes, and in Alaska where there are no counties data are shown for election districts, which are the nearest equivalents of counties. In Maryland, Missouri, and Virginia, there are a number of cities which are independent of any county organization and thus constitute primary divisions of their States.

COUNTY SUBDIVISIONS

Minor civil divisions.—The minor civil divisions which have been used traditionally for the presentation of statistics for the component parts of counties represent political or administrative subdivisions set up by the States. In addition to the county divisions shown by the Bureau, there are thousands of school, taxation, election, and other units for which separate census figures are not published. Where more than one type of primary division exists in a county, the Bureau of the Census uses the more stable divisions, so as to provide comparable statistics from decade to decade, insofar as possible.

Among the States where minor civil divisions are still recognized, there is a considerable variety of types. Although civil and judicial townships are the most frequent type of minor civil division, there are also beats, election districts, magisterial districts, towns, and gores. In some instances, as is discussed more fully below, none of the systems of subdivisions is adequate, and census county divisions have been substituted for them.

Census county divisions.—For purposes of presenting census statistics, counties in 18 States have been subdivided into statistical areas, which are called "census county divisions" (CCD's). These divisions are used instead of the minor civil divisions for which population statistics were previously reported. These changes were made because the boundaries of the minor civil divisions observed in previous censuses changed frequently or were indefinite. Where the boundaries changed frequently, comparison of the data from one census to another was impeded and the statistics for the areas were of limited value. Enumerators had difficulty in locating boundaries and in obtaining an accurate count of the population where the boundaries were indefinite, did not follow physical features, or were not well known by many of the inhabitants because the areas had lost most, if not all, of their local functions.

Census county divisions were established in the State of Washington for use in the 1950 Census. Between 1950 and 1960, they were established in 17 additional States, including 10 States in the West—Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Oregon, Utah, and Wyoming—and 7 States in the South—Alabama, Florida, Georgia, Kentucky, South Carolina, Tennessee, and Texas.

The census county divisions were defined with boundaries that seldom require change and that can be easily located. The boundaries normally follow physical features, such as roads, highways, trails, railroads, power lines, streams, and ridges. The use of survey lines was limited. The larger incorporated places are recognized as separate divisions, even though their boundaries may change as the result of annexations. Cities with 10,000 inhabitants or more generally are separate divisions. In addition, some incorporated places with as few as 2,500 inhabitants may be separate divisions. Where an unincorporated enclave exists within a city, it is included in the same census county division as the city. In establishing census county divisions, consideration was given to the trade or service areas of principal settlements and in some cases to major land use or physiographic differences.

Each census county division has a name which is ordinarily the name of the principal place located within it, except in the State of Washington where most county divisions are numbered rather than named. The boundaries of census county divisions were reviewed with the officials in each county and various State agencies and were approved by the governors of the States or their representatives. Descriptions of these boundaries are given in a set of reports entitled *United States Censuses of Population and Housing, 1960: Census County Division Boundary Descriptions*, U.S. Bureau of the Census, Washington, D.C., 1961.

In the State of Washington, some revisions in the census county divisions recognized in 1950 were made in the metropolitan counties in order to coordinate the divisions with the expanded system of census tracts.

The population count for each county or comparable area by county subdivisions (minor civil divisions or census county divisions) appears in table 7. Incorporated places which are not themselves county subdivisions and unincorporated places are shown indented under the county subdivisions in which they are located. When an incorporated or unincorporated place lies in more than one county subdivision, the population of the several parts is shown in table 7 under the appropriate county subdivision, and each part is designated as "part." The total population of such places appears in table 8. Changes in the boundaries of minor civil divisions and of census county divisions between 1950 and 1960 are shown in the notes at the end of table 7. Minor civil division boundary changes occurring between 1940 and 1950 are given in table 6 of the State reports of the 1950 Census of Population. Selected characteristics of the 1960 population of county subdivisions are shown in tables 25 and 26.

PLACES

The term "place" as used in census reports refers to a concentration of population, regardless of the existence of legally prescribed limits, powers, or functions. Most of the places listed are incorporated as cities, towns, villages, or boroughs. In addition, the large unincorporated places outside the urbanized areas were delineated; and, those places with a population of 1,000 or more are presented in the same manner as incorporated places of equal size. Each unincorporated place possesses a definite nucleus of residences and has its boundaries drawn so as to include, if feasible, all the surrounding closely settled area. Unincorporated places are shown within urbanized areas if they have 10,000 inhabitants or more and if there was an expression of local interest in their recognition. The towns in New England, townships in New Jersey and Pennsylvania, and counties recognized as urban are also counted as places.

INCORPORATED PLACES

Political units recognized as incorporated places in the reports of the decennial censuses are those which are incorporated as cities, boroughs, towns, and villages with the exception that towns are not recognized as incorporated places in the New England States, New York, and Wisconsin. The towns in these States are minor civil divisions similar to the townships found in other States and not necessarily thickly settled centers of population such as the cities, boroughs, towns, and villages in other States. Similarly, in New Jersey and Pennsylvania, where some townships possess powers and functions similar to those of incorporated places, the townships are not classified as "incorporated places." Thus, some minor civil divisions which are

"incorporated" in one legal sense of the word are not regarded by the Census Bureau as "incorporated places."

Without this restriction on "incorporated places," all of the towns in the New England States, New York, and Wisconsin and the townships in New Jersey and Pennsylvania would be counted as incorporated places without any consideration of the nature of population settlement. A number of towns and townships in these States do qualify, however, as urban towns or townships and in other towns and townships the densely settled portions are recognized as unincorporated places or as parts of an urban fringe.

UNINCORPORATED PLACES

As it did for the 1950 Census, the Bureau delineated, in advance of enumeration, boundaries for densely settled population centers without corporate limits to be covered in the 1960 Census. (See the section above on "Places.")

URBAN PLACES

The count of urban places in 1960 includes all incorporated and unincorporated places of 2,500 inhabitants or more, and the towns, townships, and counties classified as urban. Unincorporated places are designated by "U" and urban towns and townships by "UT." Under the urban definition used previous to 1950, places of 2,500 or more and the areas urban under special rules were urban places.

ANNEXATIONS

The population figure for an incorporated place in earlier censuses applies to the area of the place at the time of the given census. Hence, the indicated change in population over the decade reflects the effect of any annexations or detachments. In order to permit an analysis of the relative importance of population growth within the old boundaries and of population added in annexed territory, table 9 for incorporated places of 2,500 or more has been included here. There were a great many annexations in cities in the decade of the 1950's, and some of these annexations involved large areas.

URBANIZED AREAS

The major objective of the Bureau of the Census in delineating urbanized areas was to provide a better separation of urban and rural population in the vicinity of the larger cities. In addition to serving this purpose, however, individual urbanized areas have proved to be useful statistical areas. They correspond to what are called "conurbations" in some other countries. An urbanized area contains at least one city which had 50,000 inhabitants or more in 1960,[1] as well as the surrounding closely settled incorporated places and unincorporated areas that meet the criteria listed below. An urbanized area may be thought of as divided into the central city, or cities, and the remainder of the area, or the urban fringe. All persons residing in an urbanized area are included in the urban population.

It appeared desirable to delineate the urbanized areas in terms of the 1960 Census results rather than on the basis of information available prior to the census, as was done in 1950. For this purpose a peripheral zone was recognized around each 1950 urbanized area and around cities that were presumably approaching a population of 50,000 in 1960. Within the unincorporated parts of this zone, small enumeration districts (ED's) were established, usually including no more than one square mile of land area and no more than 75 housing units.[2]

Arrangements were made to include within the urbanized area those enumeration districts meeting specified criteria of population density as well as adjacent incorporated places. Since the urbanized area outside incorporated places was defined in terms of ED's, the boundaries of the urbanized area for the most part follow such features as roads, streets, railroads, streams, and other clearly defined lines which may be easily identified by census enumerators in the field and often do not conform to the boundaries of political units.

In addition to its central city or cities, an urbanized area also contains the following types of contiguous areas, which together constitute its urban fringe:

1. Incorporated places with 2,500 inhabitants or more.
2. Incorporated places with less than 2,500 inhabitants, provided each has a closely settled area of 100 housing units or more.
3. Towns in the New England States, townships in New Jersey and Pennsylvania and counties elsewhere which are classified as urban.
4. Enumeration districts in unincorporated territory with a population density of 1,000 inhabitants or more per square mile. (The areas of large nonresidential tracts devoted to such urban land uses as railroad yards, factories, and cemeteries, were excluded in computing the population density of an ED.)
5. Other ED's provided that they served one of the following purposes:
   a. To eliminate enclaves,
   b. To close indentations in the urbanized areas of one mile or less across the open end,
   c. To link outlying ED's of qualifying density that were no more than 1½ miles from the main body of the urbanized area.

A single urbanized area was established for cities in the same SMSA if their fringes adjoin. Urbanized areas with central cities in different SMSA's are not combined, except that a single urbanized area was established in the New York–Northeastern New Jersey Standard Consolidated Area and in the Chicago–Northwestern Indiana Standard Consolidated Area.

Urbanized areas were first delineated for the 1950 Census. In 1950, urbanized areas were established in connection with cities having 50,000 inhabitants or more according to the 1940 Census or a later special census prior to 1950; in 1960, urbanized areas were established in connection with cities having 50,000 inhabitants or more according to the 1960 Census.

The boundaries of the urbanized areas for 1960 will not conform to those for 1950, partly because of actual changes in land use and density of settlement, and partly because of relatively minor changes in the rules used to define the boundaries. The changes in the rules were made in order to simplify the process of defining the boundaries, and, as a result of these changes, the area classified as urbanized tends to be somewhat larger than it would have been under the 1950 rules. The changes include the following:

1. The use of ED's to construct the urbanized areas in 1960 resulted in a less precise definition than in 1950 when the limits were selected in the field using individual blocks as the unit of area added. On the other hand, the 1960 procedures produced an urbanized area based on the census results rather than an area defined about a year before the census, as in 1950.
2. Unincorporated territory was included in the 1950 urbanized area if it contained at least 500 dwelling units per square mile, which is a somewhat different criterion than the 1,000 persons or more per square mile of the included 1960 unincorporated areas.
3. The 1960 areas include those entire towns in New England, townships in New Jersey and Pennsylvania, and counties that are classified as urban in accordance with the criteria listed in the section on urban-rural residence. The 1950 criteria permitted the exclusion of portions of these particular minor civil divisions.

[1] There are a few urbanized areas where there are "twin central cities," neither having a population of 50,000 or more but which have a combined population of at least 50,000. See the section below on "Standard metropolitan statistical areas" for further discussion of twin central cities.

[2] An enumeration district is a small area assigned to one enumerator to be canvassed and reported separately. The average ED contained approximately 200 housing units.

In general, however, the urbanized areas of 1950 and 1960 are based on essentially the same concept, and the figures for a given urbanized area may be used to measure the population growth of that area.

Any city in an urbanized area which is a central city of an SMSA (see following section) is also a central city of an urbanized area. With but two exceptions, the names of the central cities appear in the titles of the areas. The central cities of the New York–Northeastern New Jersey Area are the central cities of the New York, Newark, Jersey City, and Paterson–Clifton–Passaic SMSA's. Likewise, the central cities of the Chicago–Northwestern Indiana Area are the central cities of the Chicago and Gary–Hammond–East Chicago SMSA's.

In this report, data are shown for each urbanized area with a central city located in this State. In chapter A the population for each component of the urbanized area is shown; and, in chapters B and C, general characteristics are presented for the central city and the total urbanized area.

STANDARD METROPOLITAN STATISTICAL AREAS

It has long been recognized that for many types of analysis it is necessary to consider as a unit the entire population in and around a city, the activities of which form an integrated economic and social system. Prior to the 1950 Census, areas of this type had been defined in somewhat different ways for different purposes and by various agencies. Leading examples were the metropolitan districts of the Census of Population, the industrial areas of the Census of Manufactures, and the labor market areas of the Bureau of Employment Security. To permit all Federal statistical agencies to utilize the same areas for the publication of general-purpose statistics, the Bureau of the Budget has established "standard metropolitan statistical areas" (SMSA's). (In the 1950 Census, these areas were referred to as "standard metropolitan areas.") Every city of 50,000 inhabitants or more according to the 1960 Census is included in an SMSA.

The definitions and titles of SMSA's are established by the Bureau of the Budget with the advice of the Federal Committee on Standard Metropolitan Statistical Areas. This committee is composed of representatives of the major statistical agencies of the Federal Government. The criteria used by the Bureau of the Budget in establishing the SMSA's are presented below. (See the Bureau of the Budget publication *Standard Metropolitan Statistical Areas*, U.S. Government Printing Office, Washington 25, D.C., 1961.)

The definition of an individual SMSA involves two considerations: First, a city or cities of specified population to constitute the central city and to identify the county in which it is located as the central county; and, second, economic and social relationships with contiguous counties which are metropolitan in character, so that the periphery of the specific metropolitan area may be determined.[3] SMSA's may cross State lines.

Population criteria.—The criteria for population relate to a city or cities of specified size according to the 1960 Census.

1. Each SMSA must include at least:
   a. One city with 50,000 inhabitants or more, or
   b. Two cities having contiguous boundaries and constituting, for general economic and social purposes, a single community with a combined population of at least 50,000, the smaller of which must have a population of at least 15,000.

2. If each of two or more adjacent counties has a city of 50,000 inhabitants or more (or twin cities under 1b) and the cities are within 20 miles of each other (city limits to city limits), they will be included in the same area unless there is definite evidence that the two cities are not economically and socially integrated.

[3] Central cities are those appearing in the SMSA title. A "contiguous" county either adjoins the county or counties containing the largest city in the area, or adjoins an intermediate county integrated with the central county. There is no limit to the number of tiers of outlying metropolitan counties so long as all other criteria are met.

Criteria of metropolitan character.—The criteria of metropolitan character relate primarily to the attributes of the contiguous county as a place of work or as a home for a concentration of nonagricultural workers.

3. At least 75 percent of the labor force of the county must be in the nonagricultural labor force.[4]

4. In addition to criterion 3, the county must meet at least one of the following conditions:
   a. It must have 50 percent or more of its population living in contiguous minor civil divisions[5] with a density of at least 150 persons per square mile, in an unbroken chain of minor civil divisions with such density radiating from a central city in the area.
   b. The number of nonagricultural workers employed in the county must equal at least 10 percent of the number of nonagricultural workers employed in the county containing the largest city in the area, or the county must be the place of employment of 10,000 nonagricultural workers.
   c. The nonagricultural labor force living in the county must equal at least 10 percent of the number of the nonagricultural labor force living in the county containing the largest city in the area, or the county must be the place of residence of a nonagricultural labor force of 10,000.

5. In New England, the city and town are administratively more important than the county, and data are compiled locally for these minor civil divisions. Here, towns and cities are the units used in defining SMSA's. In New England, because smaller units are used and more restricted areas result, a population density criterion of at least 100 persons per square mile is used as the measure of metropolitan character.

Criteria of integration.—The criteria of integration relate primarily to the extent of economic and social communication between the outlying counties and central county.

6. A county is regarded as integrated with the county or counties containing the central cities of the area if either of the following criteria is met:
   a. 15 percent of the workers living in the county work in the county or counties containing central cities of the area, or
   b. 25 percent of those working in the county live in the county or counties containing central cities of the area.

Only where data for criteria 6a and 6b are not conclusive are other related types of information used as necessary. This information includes such items as the average number of telephone calls per subscriber per month from the county to the county containing central cities of the area; percent of the population in the county located in the central city telephone exchange area; newspaper circulation reports prepared by the Audit Bureau of Circulation; analysis of charge accounts in retail stores of central cities to determine the extent of their use by residents of the contiguous county; delivery service practices of retail stores in central cities; official traffic counts; the extent of public transportation facilities in operation between central cities and communities in the contiguous county; and the extent to which local planning groups and other civic organizations operate jointly.

Criteria for titles.—The criteria for titles relate primarily to the size and number of central cities.

7. The complete title of an SMSA identifies the central city or cities and the State or States in which the SMSA is located:
   a. The name of the SMSA includes that of the largest city.
   b. The addition of up to two city names may be made in the area title, on the basis and in the order of the following criteria:
      (1) The additional city has at least 250,000 inhabitants.
      (2) The additional city has a population of one-third or more of that of the largest city and a minimum population of 25,000 except that both city names are used in those instances where cities qualify under criterion 1b. (A city

[4] Nonagricultural labor force is defined as those employed in nonagricultural occupations, those experienced unemployed whose last occupation was a nonagricultural occupation, members of the Armed Forces, and new workers.

[5] A contiguous minor civil division either adjoins a central city in an SMSA or adjoins an intermediate minor civil division of qualifying population density. There is no limit to the number of tiers of contiguous minor civil divisions so long as the minimum density requirement is met in each tier.

which qualified as a secondary central city in 1950 but which does not qualify in 1960 has been temporarily retained as a central city.)

c. In addition to city name, the area titles contain the name of the State or States in which the area is located.

Data on the number of inhabitants for SMSA's which cross State lines are shown in full in table 11 for each State in which a central city is located. If that part of an SMSA that extends into another State does not include a central city, data are shown only for the part within the State. In table 12 only that part of the SMSA which is within the State is shown. Data on general characteristics in chapters B and C are shown for each SMSA with a central city located in this State.

Data on detailed characteristics in chapter D for SMSA's which cross State lines are shown for the State containing the largest central city, and, in addition, for any State not containing the largest central city but containing 50 percent or more of the total population of the SMSA.

In the 1950 Census reports, data were presented for standard metropolitan areas (SMA's) and in several earlier censuses a somewhat similar type of area called the "metropolitan district" was used. In 1959, the criteria for delineating metropolitan areas were revised by the Bureau of the Budget, and, at the same time, the areas were designated as standard metropolitan statistical areas. The comparative SMSA figures shown here for 1950 apply to the SMSA as defined in 1960.

STANDARD CONSOLIDATED AREAS

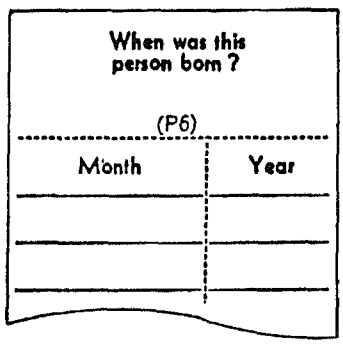
In view of the special importance of the metropolitan complexes around New York and Chicago, the Nation's largest cities, several contiguous SMSA's and additional counties that do not appear to meet formal integration criteria but do have strong interrelationships of other kinds, have been combined into the New York–Northeastern New Jersey and the Chicago–Northwestern Indiana Standard Consolidated Areas, respectively. The former is identical with the New York–Northeastern New Jersey SMA of 1950, and the latter corresponds roughly to the Chicago SMA of 1950 (two more counties having been added).

SOCIAL CHARACTERISTICS

AGE

Definitions

The data on age were derived from answers to question P6 on the Advance Census Report. These answers were copied to the complete-count and sample FOSDIC forms, as explained in the section below on "Collection of data."



The age classification is based on the age of the person in completed years as of April 1, 1960. For the first time since 1900, the Bureau of the Census obtained data on the age of the population by asking for date of birth. The respondent was requested to give the month and year of birth; for simplicity in the processing, however, only the quarter of year of birth was used in determining age. The comparable question in previous censuses was designed to obtain the age in completed years. It was believed that the use of self-enumeration coupled with the wording of the question in terms of date of birth would result in fewer errors in age reporting. On the other hand, there was a substantial rise in the proportion of persons reporting no information relating to age.

Assignment of Unknown Ages

In each census since 1940, the Bureau of the Census has estimated the age of a person when it was not reported. In censuses prior to 1940, with the exception of 1880, persons of unknown age were shown as a separate category. The summary totals for "14 years and over" and "21 years and over" for earlier censuses included all persons of "unknown age" since there is evidence that most of the persons for whom age was not reported were in the age classes above these limits. Both in 1940 and 1950, estimates for unknown ages were made for less than 0.20 percent of the population of the United States using basically similar techniques of inferring age from related information for the person and other members of the family and household. In 1960, birth date was estimated for 1.7 percent of the enumerated population on the basis of other information regarding the person reported on the census questionnaire. Also, birth date was allocated for an additional 0.5 percent of the population as a part of the process of substituting persons with reported characteristics for persons not tallied because of the enumerator's failure to interview households or because of mechanical failure in processing. This makes a total of about 2.2 percent of the population for whom age was estimated. For a discussion of the procedure followed in 1960 to estimate values for unknown items, including age, see the section below on "Editing of unacceptable data."

Errors in Age Statistics

Studies of age data collected in previous censuses have shown that age has been occasionally misreported in several characteristic ways. The numbers in some age groups have been understated, whereas others have been overstated, as the combined result of net underenumeration and of misstatements of age. One of the presumed advantages of self-enumeration was an expected reduction in such misreporting. The respondent was given an opportunity to consult records and discuss his reply before responding. Also, the wording of the question in terms of date of birth rather than age in number of years has changed the way in which age statistics tend to heap on certain terminal digits (e.g., 0 and 5) and may have reduced the overall extent of such heaping. As data become available from the 1960 tabulations, a more definitive analysis of the effect of the new enumeration techniques will be made.

Age estimates for selected SMSA's.—The 1950 data shown here for SMSA's apply to the area as defined in 1960. Estimates of some of the age categories were prepared for the relatively few areas in which 1950 data were not available in the detail needed for the 1960 area. The estimation was based on the assumption that the distribution of ages for the area to be estimated was the same as that of the area as defined in 1950.

Median Age

The median, a type of average, is presented in connection with the data on age which appear in this report. The median is the value which divides the distribution into two equal parts—one-half of the cases falling below this value and one-half of the cases exceeding this value. The medians shown in tables 94 and 95 (giving age by single years to 84) were computed on the basis of 5-year groupings.

Fertility Ratios

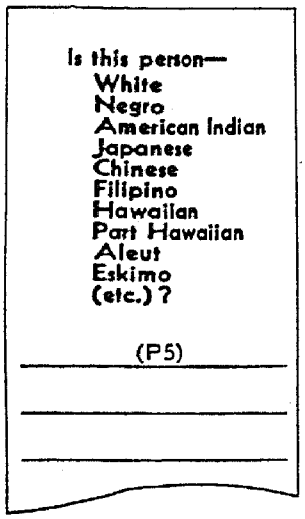
The "fertility ratio," as the term is used in this report, is the number of children under 5 years old per 1,000 women 15 to 49 years old. It is a rough index of the natural growth tendencies of various areas and population groups. The ratio is a measure of effective fertility.

The fertility ratios shown in table 13 were computed from the distribution of the population in each area by age and sex and, therefore, included *all* persons under 5 years old. The data are not comparable with those in table 114, which show women by number of *own* children under 5 years old. (See section below on "Child.")

RACE AND COLOR

Definitions

The data on race were derived from answers to the following question on the Advance Census Report:


Is this person—
White
Negro
American Indian
Japanese
Chinese
Filipino
Hawaiian
Part Hawaiian
Aleut
Eskimo
(etc.)?

(P5)

Race.—The concept of race, as it has been used by the Bureau of the Census, is derived from that which is commonly accepted by the general public. It does not reflect clear-cut definitions of biological stock, and several categories obviously refer to national origin. The use of self-enumeration in the 1960 Census may have affected the data on race as compared with those of earlier censuses. Whereas formerly the classification was obtained in most cases by the enumerator's observation, in 1960 it was possible for members of the household to classify themselves. Some of their entries were ambiguous; but, where the enumerator failed to classify these into the prescribed census racial categories, the classification was made in the editing process. Nonetheless, in many areas the proportion of persons classified as of "other races" may be somewhat higher than it would have been had the 1950 procedures been followed.

Color.—The term "color" refers to the division of the population into two groups, white and nonwhite. The color group designated as "nonwhite" includes persons of Negro, American Indian, Japanese, Chinese, Filipino, Korean, Asian Indian, and Malayan races. Persons of Mexican birth or ancestry who are not definitely of Indian or other nonwhite race are classified as white. In the 1930 publications, Mexicans were included in the group "other races," but the 1930 data published in this report have been revised to include Mexicans in the white population.

Negroes, Indians, Japanese, etc., are quite different with respect to some demographic and economic characteristics; but, since Negroes constitute 92 percent of all nonwhites, many of the data presented are shown for all the nonwhite races combined, in order to effect savings in tabulation and publication. Statistics for specific nonwhite races may be found in chapter B.

Nonwhite Races

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

American Indian.—In addition to fullblooded Indians, persons of mixed white and Indian blood are included in this category if they are enrolled on an Indian tribal or agency roll. A common requirement for such enrollment at present is that the proportion of Indian blood should be at least one-fourth. Indians living in Indian territory or on reservations were not included in the official population count of the United States until 1890.

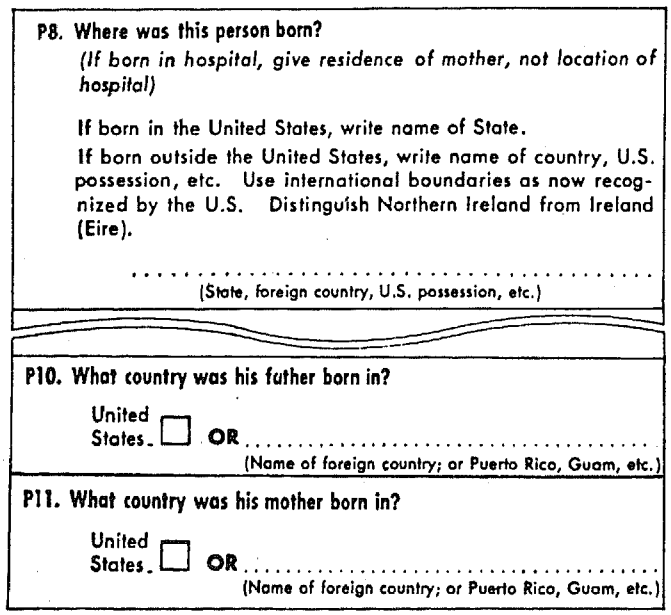
Other races.—The category "other races" is used variously in different tables of this report to include all racial stocks not shown separately. The greatest detail on racial stock of the population is presented in chapter B, in which separate statistics for persons of the white, Negro, American Indian, Japanese, Chinese, Filipino, and all other racial stocks are shown for each SMSA, urbanized area, urban place of 10,000 or more, and county. In tables of chapter B in which detailed racial stock is presented, "other races" thus includes only the relatively small numbers of Koreans, Hawaiians, Asian Indians, Malayans, Eskimos, Aleuts, etc. Elsewhere, "other races" includes all nonwhite races other than Negro.

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

In 1950, an attempt was made to classify as separate groups persons of mixed white, Negro, and Indian ancestry living in specified communities. These persons were included in the "other races" category. Because of problems of identification of these groups encountered in 1950 and the difficulty of distinguishing these groups by self-enumeration, the practice was dropped in 1960, except for the classification of a very few small mixed groups.

NATIVITY, PLACE OF BIRTH, AND PARENTAGE

The data on nativity, place of birth, and parentage were derived from answers to the following questions on the Household Questionnaire:


P8. Where was this person born?
(If born in hospital, give residence of mother, not location of hospital)

If born in the United States, write name of State.
If born outside the United States, write name of country, U.S. possession, etc. Use international boundaries as now recognized by the U.S. Distinguish Northern Ireland from Ireland (Eire).

.....
(State, foreign country, U.S. possession, etc.)

P10. What country was his father born in?
United States ☐ OR .....
(Name of foreign country; or Puerto Rico, Guam, etc.)

P11. What country was his mother born in?
United States ☐ OR .....
(Name of foreign country; or Puerto Rico, Guam, etc.)

Nativity

In this report, information on place of birth is used to classify the population of the United States into two major categories, native and foreign born. The "native" category comprises persons born in the United States, the Commonwealth of Puerto Rico, or a possession of the United States. Also included in this category is the small number of persons who, although they were born in a foreign country or at sea, have at least one native American parent. Persons whose place of birth was not reported are assumed to be native unless their census report contains contradictory information, such as an entry of a language spoken prior to coming to the United States. Persons not classified as "native" in accordance with these qualifications were considered "foreign born."

The total and white populations of the United States have been classified as native or foreign born in every census since 1850. Beginning with the Census of 1900, the Negro population and the population of other races were similarly classified.

Place of Birth

Native.—Data on the State of birth of the native population have been collected at each census beginning with that of 1850. In the Censuses of 1850 and 1860, State of birth was presented for whites and for free Negroes only. In this report, as in those for some of the more recent censuses, State of birth has been shown for the native population of the urban, rural-nonfarm, and rural-farm parts of States, and of individual cities above a specified minimum size.

In chapter C of this report, the native population is further classified into the following groups: Persons born in the State in which they were residing at the time of the census, persons born in a different State, persons born in an outlying area of the United States or at sea of American parents, and persons whose State of birth was not reported. In addition, chapter D presents the region of birth of persons born in a different State and separate categories are shown for persons born in an outlying area of the United States and for persons born abroad or at sea of American parents. The enumerators in 1960 were instructed to report place of birth in terms of the mother's usual State of residence at the time of birth rather than in terms of the location of the hospital if the birth occurred in a hospital. This instruction also appeared on the Household Questionnaire.

The statistics on State of birth are of value mainly for the information they provide on the historical movements of the native population from one State to another within the United States from the time of birth to the date of the census. These statistics indicate migration only in terms of the number of persons who had moved from the State of their birth and were still living in another State on the date of the census. The statistics therefore afford no indication of the amount of migration within a given State from rural to urban communities or from one locality to another; nor do they take any account of intermediate moves between the time of a person's birth and the time of the census.

The statistics thus do not indicate the total number of persons who have moved from the State in which they were born to other States, or to any specific State, during any given period of time. Some of those who had gone from one State to another have since died, others have returned to the State in which they were born, and others have gone to still other States, or places outside the United States.

Foreign born.—Foreign-born persons were asked to report their country of birth according to international boundaries as recognized by the United States on April 1, 1960. Similarly, in editing and coding the data on country of birth of the foreign born, the list of countries used was composed of those officially recognized by the United States at the time of the census. There may have been considerable deviation from the rules specified in the instructions, in view of numerous changes in boundaries that have occurred. Moreover, many foreign-born persons are likely to report their country of birth in terms of boundaries that existed at the time of their birth or emigration, or in accordance with their own national preference; such variations in reporting may have been intentional or the result of ignorance of the boundaries recognized by the United States.

Parentage and Birthplace of Parents

Information on birthplace of parents is used to classify the native population of the United States into two categories: Native of native parentage and native of foreign or mixed parentage. The category "native of native parentage" comprises native persons, both of whose parents are also natives of the United States. The category "native of foreign or mixed parentage" comprises native persons, one or both of whose parents are foreign born. The rules for determining the nativity and country of birth of parents are substantially the same as those used for the persons enumerated. Where the data on parents' birthplace were incomplete, the editing procedure made use of other related information on the census schedule in order to determine an acceptable entry where possible.

Foreign Stock

The foreign-born population is combined with the native population of foreign or mixed parentage in a single category termed "foreign stock." This category comprises all first- and second-generation Americans. Third and subsequent generations in the United States are described as "native of native parentage."

In this report, persons of foreign stock are classified according to their country of origin with separate distributions shown for the foreign born and the native of foreign or mixed parentage. In this classification, native persons of foreign parentage whose parents were born in different countries are classified according to the country of birth of the father.

MOTHER TONGUE OF THE FOREIGN BORN

Definitions

The data on mother tongue of the foreign born were derived from answers to the following question on the Household Questionnaire:

> **P9.** *If this person was born outside the U.S.—*
> **What language was spoken in his home before he came to the United States?**
>
> .....

In the 1960 Census, mother tongue is defined as the principal language spoken in the person's home before he came to the United States. If a person reported more than one language, the code assigned was the mother tongue reported by the largest number of immigrants from that country in the 1940 Census. Data are shown in chapter C for all the more common European languages, as well as Chinese, Japanese, and Arabic.

Data on mother tongue were collected in the interest of determining nationality or ethnic or linguistic origin of the foreign born, especially of those persons born in certain Eastern European areas which have experienced changes in national sovereignty. The data on mother tongue of the foreign born do not necessarily reflect a person's current language skills or an inability to speak English. The vast majority of persons reporting a mother tongue other than English have learned to speak English since entering this country. It is likely, furthermore,

that many of these persons have forgotten the mother tongue they reported, and some have acquired skills in other foreign languages.

Nonresponse to the question on mother tongue was relatively frequent in some areas. Failure to report a language may have resulted from a number of causes. For example, in some situations, the respondent and the enumerator may have thought the mother tongue was obvious from the country of birth. Furthermore, since the mother-tongue question was asked only of foreign-born persons, it was asked relatively rarely in some areas and may have been overlooked by the enumerator in direct interview situations. It is apparent that in areas where there are large concentrations of foreign-born persons, nonresponse rates are substantially lower than in areas where there are relatively few such persons. No assignments to replace nonresponses were made for missing entries on mother tongue for this report.

Comparability

A question on mother tongue was asked in the Censuses of 1910, 1920, 1930, and 1940. The comparability of these data is limited to some extent by changes in the wording of the question, in the categories of the population to which the question was addressed, and in the detail that was published. In 1940, the question asked for the language spoken in earliest childhood and included a caution to enumerators that, when obtaining this information from foreign-born persons, they should record the language spoken in the home before the person came to the United States. In 1960, if both English and another mother tongue were reported, preference was always given to the non-English language. This procedure may reduce somewhat the proportion of the foreign-born population classified as having English as their mother tongue.

In the 1910 and 1920 Censuses, statistics on mother tongue were published for the foreign white stock; in 1930, they were published for the foreign-born white population; and in 1940 they were published for the native white of native parentage as well as the foreign white stock. In the present census, they are shown for the foreign-born population of all races combined.

YEAR MOVED INTO PRESENT HOUSE

The data on year moved into present residence were derived from the answers to the following question on the Household Questionnaire:

P12. When did this person move into this house (or apartment)?
(Check date of last move)

In 1959 or 1960 ... ☐	Jan. 1954 to March 1955 ... ☐
In 1958 ..... ☐	1950 to 1953 ... ☐
In 1957 ..... ☐	1940 to 1949 .... ☐
April 1955 to Dec. 1956 ..... ☐	1939 or earlier ... ☐
	Always lived here . ☐

Respondents were asked to answer in terms of the most recent move they had made. The intent was to obtain the year when the person established his usual residence in the housing unit. Thus, a person who had moved back into the same house (or apartment) in which he had previously lived was asked to give the date at which he began the present occupancy. If a person had moved from one apartment to another in the same building, he was expected to give the year when he moved into the present apartment. In reports of the 1960 Census, the category "always lived here" includes persons who reported that their residence on April 1, 1960, was the same as their residence at birth and who had never had any other place of residence. In reports of the 1960 Census of Housing, however, "year moved into present house" is shown for heads of households, but the category "always lived here" is not used; heads of households who had always lived in the present house were distributed among the time periods on the basis of the head's age.

RESIDENCE IN 1955

Definitions

The data on residence in 1955 were derived from the answers to the following questions on the Household Questionnaire:

P13. Did he live in this house on April 1, 1955?
(Answer 1, 2, or 3)

1. Born April 1955 or later ..... ☐

OR

2. Yes, this house ..... ☐

OR

3. No, different house ... ☐

Where did he live on April 1, 1955?

a. City or town .....

b. *If city or town*—Did he live inside the city limits? ... { Yes ... ☐ / No ... ☐

c. County .....
AND
State, foreign country, U.S. possession, etc. .....

Residence on April 1, 1955, is the usual place of residence 5 years prior to enumeration. Residence in 1955 was used in conjunction with residence in 1960 to determine the extent of mobility of the population.

The category "same house as in 1960" includes all persons 5 years old and over who were reported as living in the same house on the date of enumeration in 1960 and 5 years prior to enumeration. Included in the group are persons who had never moved during the 5 years as well as those who had moved but by 1960 had returned to their 1955 residence. Persons who had changed residence from 1955 to 1960 were classified according to type of move.

The category "different house in the U.S." includes persons who, on April 1, 1955, lived in the United States in a different house from the one they occupied on April 1, 1960, and for whom sufficient information concerning the 1955 residence was collected. These persons were subdivided into three groups according to their 1955 residence, viz., "different house, same county," "different county, same State," and "different State." The last category was further subdivided by region of 1955 residence.

The category "abroad" includes those with residence in a foreign country or an outlying area of the United States in 1955. (In the coding of this item, persons who lived in Alaska or Hawaii in 1955 but in other States in 1960 were classified as living in a different State in 1955.)

Persons 5 years old and over who had indicated they had moved into their present residence after April 1, 1955, but, for whom, or for members of their families, sufficiently complete and consistent information regarding residence on April 1, 1955, was not collected, are included in the group "moved, place of residence in 1955 not reported." (Missing information was supplied if data were available for other members of the family.) Also included in the category "moved, place of residence in 1955 not reported" are persons who gave no indication as to their movement since April 1,

1955, but who, on the basis of the final edited entry for year moved (for which all nonresponses were replaced by assigned entries), were classified as having moved into their present house since April 1, 1955.

The number of persons who were living in different houses in 1960 and 1955 is somewhat less than the total number of moves during the 5 years. Some persons in the same house at the two dates had moved during the 5-year period but by the time of enumeration had returned to their 1955 residence. Other persons made two or more moves. Persons in a different house in the same county may actually have moved between counties during the 5-year period but by 1960 had returned to the same county of residence as that in 1955. Finally, some movers during the 5-year period had died or gone abroad.

Comparability

Similar questions on mobility were asked in the 1950 and 1940 Censuses. However, the questions in the 1950 Census, as well as in annual supplements to the Current Population Survey, applied to residence 1 year earlier rather than 5 years earlier. In the 1950 reports, migrants reporting the State but not the county of residence in 1949 were included in the known categories of migration status and State of origin, whereas in this report such persons were all assigned to the category "moved, place of residence in 1955 not reported." This partial nonresponse group comprised 411,590 migrants in 1950; the corresponding figure for 1960 is not known.

Although the questions in the 1940 Census covered a 5-year period, comparability with that census is reduced somewhat because of different definitions and categories of tabulation. In 1940, the population was classified in terms of four categories: Migrants, nonmigrants, immigrants, and migration status not reported. The first group, "migrants," included those persons who in 1935 lived in a county (or quasi-county) different from the one in which they were living in 1940. A quasi-county was defined as a city which had a population of 100,000 or more in 1930 or the balance of the county within which such a city was located. The second group, "nonmigrants," comprised those persons living in the same house in 1935 as in 1940 as well as persons living in a different house in the same county or quasi-county. The group classified as "immigrant" in 1940 is comparable to the group classified in 1960 as "abroad." The 1940 classification, "migration status not reported," included persons for whom information was not reported in addition to those for whom the information supplied was not sufficient.

In the Series PHC(1), Census Tract Reports, for Denver, Colo.; Washington, D.C.-Md.-Va.; New Orleans, La.; Baltimore, Md.; St. Louis, Mo.-Ill.; Philadelphia, Pa.-N.J.; and Richmond, Va., the number of persons shown as having moved within the central city of the SMSA is slightly too low and the number shown as having moved from the ring to the central city is correspondingly too high. The cities in question are either coterminous with counties or are independent of any county. The error occurred in the tabulation where codes of "this county" without a code for the city were tallied as "other part of this SMSA." In those SMSA's with only one central city, the correct figures are available from the line for "same county" in table 82 of this report. If there are two or more central cities, however, the correct figures are not available for the category "central city of this SMSA." The SMSA's concerned are Newport News–Hampton and Norfolk–Portsmouth in Virginia and San Francisco–Oakland in California.

SCHOOL ENROLLMENT AND YEAR OF SCHOOL IN WHICH ENROLLED

Definitions

The data on school enrollment were derived from answers to the following questions on the Household Questionnaire:

P16. Has he attended regular school or college at any time since February 1, 1960?

If he has attended only nursery school, business or trade school, or adult education classes, check "No"

Yes... ☐ No.... ☐

P17. Is it a public school or a private school?

Public school..... ☐

Private or parochial school.... ☐

The answers to these questions were recorded for persons 5 to 34 years of age. The data on year of school in which enrolled were obtained by tabulating, for those who were enrolled, the responses to the question on highest grade attended (see section below on "Years of school completed").

Schooling included.—Persons were *included as enrolled* in school if they reported attending or being enrolled in a "regular" school or college at any time between February 1, 1960, and the time of enumeration. According to the census definition, "regular" schooling refers to formal education obtained in public and private (denominational or nondenominational) kindergartens, graded schools, colleges, universities, or professional schools, whether day or night school, and whether attendance was full time or part time. That is, "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 who had been enrolled in a regular school since February 1, 1960, but who had not actually attended, for example, because of illness, were counted as enrolled in school.

Schooling excluded.—Persons were excluded from the enrollment figures if the only schools they had been attending at any time since February 1, 1960, were *not* "regular" (unless courses taken at such schools could have been counted for credit at a regular school). Schooling which is generally regarded as *not* "regular" includes that which is given in nursery schools, in specialized vocational, trade, or business schools, in *on-the-job* training, and through correspondence courses.

Level and year of school in which enrolled.—Persons who were enrolled in school were classified according to the level and year of school in which they were enrolled. The levels which are separately identified in this report are kindergarten, elementary school, high school, and college. Table 101 in chapter D presents data for single years within each level. 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 obtained. (See the section on "Years of school completed" for a discussion of variations in school organization.) The term "college" includes junior or community colleges, regular 4-year colleges, and graduate or professional schools.

Public or private school.—Persons who were enrolled in school were also classified as attending a public or private school. In general, a "public" school is defined as any school which is controlled and supported primarily by a local, State, or Federal government agency, whereas "private" schools are defined as schools which are controlled and supported mainly by a religious organization or by private persons or organizations.

Enumeration of college students.—College students were enumerated in 1950 and 1960 where they lived while attending college, whereas in most earlier censuses they generally were enumerated

at their parental home. A study conducted in the Current Population Survey showed, however, that residence while attending college is the same under both the current and the previous procedures for roughly one-half of the college students; furthermore, only part of the one-half who would be classified at different residences would be counted in different counties and still fewer in different States.

Comparability

Earlier census data.—The corresponding question on schooling in the 1930 Census applied to a somewhat longer period, the period since the preceding September 1. Furthermore, in that census the question was not restricted as to the kind of school the person was attending. In 1940, the question referred to the period since the preceding March 1. There were indications, following that census, that in some areas the schools closed early (i.e., before March 1) for such reasons as lack of funds, flood conditions, or crop sowing. For such areas, the enrollment rates would, therefore, have been relatively low. In order to insure more complete comparability among areas, it was considered advisable in 1950 to change the reference period to that between February 1 (the usual date for beginning the second semester) and the time of enumeration. The corresponding reference period was used in 1960.

In 1950, for the first time in a decennial census, kindergarten enrollment was separately identified, but the number of children enrolled in kindergarten was not included with the 1950 statistics on enrollment in regular schools. In 1960, kindergarten enrollment was separately identified and included with the regular enrollment figures. In this report, the statistics for 1950 have been adjusted to include enrollment in kindergarten with the regular enrollment figures.

The age range for which enrollment data have been obtained has varied for the several censuses. Information on enrollment was recorded for persons of all ages in 1930 and 1940, for persons 5 to 29 years old in 1950, and for those 5 to 34 years old in 1960. Most of the published enrollment figures relate, however, to ages 5 to 20 in 1930, 5 to 24 in 1940, 5 to 29 in 1950, and 5 to 34 in 1960. The enrollment statistics at the older ages reported in 1930 and 1940 were regarded as of poor quality and as relating mostly to enrollment in other than regular schools. The extended age coverage for the published enrollment data in the recent censuses reflects the increasing number of persons in their late twenties and early thirties who are attending regular colleges and universities.

In 1960, as in prior censuses, persons for whom there was no report on school enrollment were allocated as either enrolled or not enrolled. In both 1940 and 1950, the editing rules were determined largely on the basis of information on ages of compulsory attendance as compiled by the U.S. Office of Education. Additional information used in editing included other items on the schedule and results of Current Population Surveys showing the percent enrolled for various age groups. In general, in 1940 and 1950, persons 5 through 17 years of age not reporting on school enrollment were treated as enrolled, whereas those over 17 years old were considered not enrolled. The general scheme used in eliminating nonresponses in 1960 is discussed in the section below on "Editing of unacceptable data."

Data from other sources.—Data on school enrollment are also collected and published by other Federal, State, and local governmental agencies. This information is generally obtained from reports of school systems and institutions of higher learning and from other surveys and censuses. These data are only roughly comparable with data collected by the Bureau of the Census by household canvassing, however, because of differences in definitions, subject matter covered, time references, and enumeration methods.

YEARS OF SCHOOL COMPLETED

Definitions

The data on years of school completed were derived from answers to the following questions on the Household Questionnaire:

P14. What is the highest grade (or year) of regular school this person has ever attended? *(Check one box)*

If now attending a regular school or college, check the grade (or year) he is in. If it is in junior high school, check the box that stands for that grade (or year).

Never attended school .. ☐

Kindergarten ..... ☐

	1	2	3	4	5	6	7	8
Elementary school (Grade)	☐	☐	☐	☐	☐	☐	☐	☐

	1	2	3	4
High school (Year)	☐	☐	☐	☐

	1	2	3	4	5	6 or more
College (Year)	☐	☐	☐	☐	☐	☐

P15. Did he finish the highest grade (or year) he attended?

Finished this grade ... ☐ Did not finish this grade ... ☐ Never attended school ... ☐

These questions on educational attainment applied only to progress in "regular" schools, as defined above. Both questions were asked of all persons 5 years of age and over. In the present report, these data are shown for persons 14 to 24 years old not enrolled in school and for all persons 14 years old and over.

Highest grade of school attended.—The first question called for the highest grade attended, regardless of "skipped" or "repeated" grades, rather than the number of full school years which the person had spent in school. If the highest grade of school attended was in a junior high school, the instructions to enumerators were to determine the equivalent in elementary grades 1 to 8 or high school grades 1 to 4.

In some areas in the United States, the school system has, or formerly had, 11 years of school (7 years of elementary school and 4 years of high school) rather than the more conventional 12 years (8 years of elementary school and 4 years of high school, or equivalent years in the elementary–junior high–senior high school system). Persons who had progressed beyond the 7th grade in this type of school system were treated as though they had progressed beyond the 8th grade of elementary school.

Enumerators were instructed to obtain the approximate equivalent grade in the American school system for persons whose highest grade of attendance was in a foreign school system, whose highest level of attendance was in an ungraded school, whose highest level of schooling was measured by "readers," or whose training by a tutor was regarded as qualifying under the "regular" school definition.

Completion of grade.—The second question on educational attainment asked whether or not the highest grade attended had been finished. It was to be answered "Yes" if the person had successfully completed the entire grade or year indicated in response to the previous question on the highest grade ever attended. If the person was still attending school in that grade, had completed only a half grade or semester, or had dropped out of or failed to pass the last grade attended, the question was to be answered "No."

Comparability

Question wording and editing.—In 1940, a single question was asked on highest grade of school completed. Analysis of the 1940 returns and those of other surveys conducted by the Census Bureau using wording similar to that used in 1940 indicated that respondents frequently reported the grade or year in which they were enrolled, or had last been enrolled, instead of the one completed. The two-question approach used in 1950 and 1960 was designed to reduce this kind of error.

In 1950, persons for whom highest grade attended was reported but for whom no report was made on finishing the grade were assumed not to have finished the grade if they were at the compulsory school ages but to have finished the grade if they were not at those ages. In 1960, nonresponses on both highest grade attended and completion of grade were eliminated by the procedure described below, in the section on "Editing of unacceptable data."

The number in each category of highest grade of school completed for 1950 and 1960 represents the combination of (*a*) persons who reported that they had attended the indicated grade and finished it, and (*b*) those who had attended the next higher grade but had not finished it.

Median School Years Completed

The median number of school years completed is defined as the value which divides the population group into two equal parts—one-half having completed more schooling and one-half having completed less schooling than the median. This median was computed after the statistics on years of school completed had been converted to a continuous series of numbers (e.g., completion of the 1st year of high school was treated as completion of the 9th year and completion of the 1st year of college as completion of the 13th year). The persons completing a given school year were assumed to be distributed evenly within the interval from .0 to .9 of the year. In fact, at the time of census enumeration (generally April or May), most of the enrolled persons had completed at least three-fourths of a school year beyond the highest grade completed, whereas a large majority of persons who were not enrolled had not attended any part of a grade beyond the highest one completed. The effect of the assumption is to place the median for younger persons slightly below, and for older persons slightly above, the true median.

The same procedure for computing this median has been used in the 1940, 1950, and 1960 Censuses. Because of the inexact assumption as to the distribution within an interval, this median is more appropriately used for comparing groups and the same group at different dates than as an absolute measure of educational attainment.

VETERAN STATUS

The data on veteran status were derived from answers to the following question on the Household Questionnaire:

P35. *If this is a man—*

Has he ever served in the Army, Navy, or other Armed Forces of the United States?

Yes ☐ No ☐ *(Check one box on each line)*

Was it during:	Yes	No
Korean War (June 1950 to Jan. 1955)	☐	☐
World War II (Sept. 1940 to July 1947)	☐	☐
World War I (April 1917 to Nov. 1918)	☐	☐
Any other time, including present service	☐	☐

Data on veteran status are being published in detail for the first time in this census. In the Census of 1840, a special volume was issued giving the names, ages, and places of residence of pensioners of the Revolutionary War or other U.S. military service, but other veterans were not identified. An inquiry on veteran status was undertaken in the Census of 1890, and summary statistics on surviving veterans of the Union and Confederate Armies were published. A question on veteran status was also included in the Censuses of 1910, 1930, 1940, and 1950, but the results of these inquiries were not published because of the high rate of nonresponse and other reasons.

A "veteran" as defined here is a civilian male 14 years old and over, who has served but is not now serving in the Armed Forces of the United States. All other civilian males 14 years old and over are classified as nonveterans. Because relatively few females have served in the Armed Forces of this country, questions on veteran status were asked only of males.

The veteran population is classified according to period of service. Among veterans with more than one period of service, those who served in both the Korean War and World War II are presented as a separate group. All other persons with more than one period of service reported are shown according to the most recent wartime period of service reported. All data for veterans were edited to eliminate reported periods of service which were inconsistent with reported ages.

Comparability

The figures in this report on the number of veterans cover all civilian males 14 years old and over in the United States who have served in the Armed Forces, regardless of whether their service was in war or during peacetime. The Veterans Administration's estimates include civilian veterans living outside as well as in the United States and, generally speaking, cover only persons with war service. Thus, the count of veterans from the 1960 Census is not directly comparable in all particulars with estimates of the total number of veterans published by the Veterans Administration.

Within these limitations, however, it appears that the 1960 Census figure for veterans of World War II and/or the Korean War is about 7 percent less than the Veterans Administration's estimate, and that the census count and the Veterans Administration's estimate for veterans of World War I are in substantial agreement. The difference in definition of the "other service" category precludes any useful comparison of the figures for this group. It is possible that the census figure, which presumably reflects in large part persons who served between World War II and the Korean War and after the Korean War, is overstated. Additional tabulations of the characteristics of veterans from the 1960 Census, and further study of the figures from both the Census Bureau and Veterans Administration, are being planned in an effort to determine the sources of these differences.

MARITAL STATUS

The data on marital status were derived from answers to the following question on the Advance Census Report:

Is this person—
Married
Widowed
Divorced
Separated
Single (never married)?

(Leave blank for children born after March 31, 1946)

(P7)

The classification refers to the marital status of the person at the time of enumeration. Persons classified as "married" comprise, therefore, both those who have been married only once and those who remarried after having been widowed or divorced.

Persons reported as separated (either legally separated or otherwise absent from the spouse because of marital discord) are classified as a subcategory of married persons. The enumerators were instructed to report persons in common-law marriages as married and persons whose only marriage had been annulled as single. Persons "ever married" are those in the categories married (including separated), widowed, and divorced.

Differences between the number of married men and the number of married women are due partly to the absence of husbands or wives from the country at the time of enumeration. Examples are women whose husbands were in the Armed Forces overseas and immigrants whose husbands or wives were still abroad. Differences may also arise because the husband and wife have different places of residence, because of differences in the completeness and accuracy of reporting on marital status for men and women, and because of the methods used to inflate the sample cases as explained in the second paragraph below.

Married persons with "spouse present" are persons whose spouse was enumerated as a member of the same household even though he or she may have been temporarily absent on business or vacation, visiting, in a hospital, etc. The small number of persons living with their spouse in group quarters are classified as married, spouse absent; if a married person in group quarters was in the sample, his spouse was unlikely to be in the sample, because in group quarters the sample consisted of every fourth person in order of enumeration.

The number of married men with wife present, shown in this report, is identical with the number of married couples. (See discussion of "Married couple" below.) By definition, these numbers should also be identical with the number of married women with husband present. However, the figures may not be exactly the same because, in the weighting of the sample, husbands and their wives were sometimes given different weights. Married persons with "spouse absent—other" comprise married persons employed and living away from their homes, those whose spouse was absent in the Armed Forces, in-migrants whose spouse remained in other areas, husbands or wives of inmates of institutions, married persons (other than separated) who were living in group quarters, and all other married persons whose place of residence was not the same as that of their spouse.

Comparability

The 1960 marital status categories are the same as those of the 1950 Census, except for the exclusion of all persons in group quarters from the category "married, spouse present." It is possible, however, that the use of self-enumeration in 1960 rather than direct enumeration, as in 1950, has produced some degree of incomparability between the two sets of data.

Whether Married More Than Once

The data on whether married more than once were derived from answers to the following question on the Household Questionnaire:

> **P18.** *If this person has ever been married—*
> **Has this person been married more than once?**
>
> Once ☐ More than once ☐

In 1950, the corresponding question was "Has this person been married more than once?"

HOUSEHOLD AND GROUP QUARTERS MEMBERSHIP, AND RELATIONSHIP TO HEAD OF HOUSEHOLD

Definitions

The data on households, group quarters, and relationship to head of household were derived in part from the following question on the Advance Census Report:

> **What is the relationship of each person to the head of this household?**
>
> (For example, wife, son, daughter, grandson, mother-in-law, lodger, lodger's wife)
>
> (P3)
> HEAD OF HOUSEHOLD
> _____
> _____
> _____

Greater detail on persons classified as "other relative" or "nonrelative," which was used in determining family membership, was obtained from the following question on the Household Questionnaire:

> **P3. What is the relationship of this person to the head of this household?**
>
> Head ..... ☐
> Wife of head ..... ☐
> Son or daughter of head .... ☐
>
> Other—*Write in:* .....
> (For example: Son-in-law, mother, uncle, cousin, etc.)

Household.—A household consists of all the persons who occupy a housing unit. A house, an apartment or other group of rooms, or a single room, is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants do not live and eat with any other persons in the structure and in which there is either (1) direct access from the outside or through a common hall, or (2) a kitchen or cooking equipment for the exclusive use of the occupants.

The average population per household is obtained by dividing the population in households by the number of households. The number of households is equal to the number of household heads.

Group quarters.—All persons who are not members of households are regarded as living in group quarters. Group quarters are living arrangements for institutional inmates or for other groups containing five or more persons unrelated to the person in charge. Group quarters are located most frequently in institutions, lodging and boarding houses, military and other types of barracks, college dormitories, fraternity and sorority houses, hospitals, homes for nurses, convents, monasteries, and ships. Group quarters are also located in a house or an apartment in which the living quarters are shared by the person in charge and five or more persons unrelated to him.

Five categories of group quarters are shown here:

1. *Rooming or boarding house.*—In addition to rooming and boarding houses, this category includes group quarters in ordinary homes, tourist homes, hotels, motels, residential clubs, Y's, and dormitories for students below the college level. Not all of the persons in these types of quarters are classified as living in group quarters; some are classified as living in housing units.

2. *Military barracks.*—These are quarters which are occupied by military personnel and which are not divided into separate housing units. Data on persons in such quarters are shown separately in this report only for men.

3. *College dormitory.*—As used here, this term also refers to a fraternity or sorority house.

4. *Institution.*—Institutions include the following types: Correctional institution, hospital for mental disease, residential treatment center, tuberculosis hospital, other hospital for chronic disease, home for the aged and dependent (with or without nursing care), home or school for the mentally or physically handicapped, home for unwed mothers, or a home for dependent and neglected children; or a place providing custody for juveniles, such as a training school for juvenile delinquents, detention home, or diagnostic and reception center. Inmates of institutions are persons for whom care or custody is being provided. "Resident staff members" are persons residing in group quarters on institutional grounds who provide care or custody for the inmates.

5. *Other group quarters.*—These quarters include the following types: General hospital (including quarters for nurses and other staff members), mission or flophouse, ship, religious group quarters (largely quarters for nuns teaching in parochial schools and for priests living in rectories; also other convents and monasteries except those associated with a general hospital or an institution), and dormitory for workers (including bunkhouse in migratory workers' camp, logging camp, or other labor camp). In addition, military barracks occupied by women are classified in this report as "other" group quarters.

All rural-farm persons in group quarters are persons in dormitories for workers located on a farm. (See chapter D, table 107.) In chapter C, these persons were erroneously classified as rural nonfarm because of a processing error.

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

1. The "head of household" is the member reported as the head by the household respondent. The instructions to enumerators defined the head as the person considered to be the head by the household members. However, if a married woman living with her husband was reported as the head, her husband was classified as the head for the purpose of these tabulations.

Household heads are either heads of primary families or primary individuals. The head of a primary family 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. The "wife of head" is a woman married to, and living with, a household head. This category includes women in common-law marriages as well as women in formal marriages. This category is somewhat less inclusive than the category of married women, husband present, because it excludes those married women whose husband is not head of the household. By definition, the number of wives of household heads should be identical with the number of heads of households who are married males, wife present, but in practice the two numbers may differ because, in the weighting of the sample, husbands and wives were sometimes given different weights.

3. A "child of head," as shown in tables on relationship in chapters B and D, is a son, daughter, stepchild, or adopted child of the head of the household (regardless of the child's marital status or age). The term excludes all other children, sons-in-law, and daughters-in-law in the household. "Child of head" is a more inclusive category than "own child of head." (See section on "child" below.)

4. An "other relative of head" is a household member related to the head by blood, marriage, or adoption but not included specifically in another category. In table 106 this category includes only such relatives of the head as nephews, aunts, cousins, and grandparents; however, in table 135 the category comprises all relatives of the head other than his wife.

5. A "nonrelative of head" is any person in the household not related to the head by blood, marriage, or adoption. Nonrelatives consist of lodgers and resident employees, as defined below.

A "lodger" is any household member not related to the head except a resident employee. The category "lodger" includes roomers, boarders, partners, and relatives of such persons, and also foster children and wards. A resident employee is an employee of the head of the household who usually resides in the housing unit with his employer; the term also includes the employee's relatives living in the same housing unit. Among the main types of resident employees are maids, hired farm hands, cooks, nurses, and companions.

Comparability

1960 and 1950 household definition.—The 1960 definition of a household differs slightly from that used in the 1950 Census. The change arises as a result of the shift from a dwelling unit to a housing unit as the basic unit of enumeration in the Census of Housing. According to the 1960 definition, a household consists of all the persons who occupy a housing unit, whereas according to the 1950 definition, a household consisted of all the persons who occupied a dwelling unit.

In 1950, a dwelling unit was defined as: (1) A group of rooms occupied or intended for occupancy as separate quarters and having either separate cooking equipment or a separate entrance; or (2) a single room (*a*) if it had separate cooking equipment, (*b*) if it was located in a regular apartment house, or (*c*) if it constituted the only living quarters in the structure.

Housing units differ from dwelling units mainly in that *separate* living quarters consisting of one room with direct access but without cooking equipment always qualify as a housing unit in 1960 but qualified as a dwelling unit in 1950 only when located in a regular apartment house or when the room was the only living quarters in the structure.

The evidence so far available suggests that using the housing unit concept in 1960 instead of the dwelling unit concept as in 1950 had relatively little effect on the comparability of the statistics for the two dates on the number of households for large areas and for the Nation. Any effect which the change in concept may have on comparability can be expected to be greatest in statistics shown in other reports for some small areas, such as city blocks and census tracts. Living quarters classified as housing units in 1960 but which would not have been classified as dwelling units in 1950 tend to be clustered in neighborhoods where many persons live alone in single rooms in hotels, rooming houses, and other light housekeeping quarters. In such areas, the number of households in 1960 may be higher than in 1950 even though no housing units were added by construction or conversion.

The count of households in 1950 excluded groups of persons living as members of quasi-households. A quasi-household was defined as the occupants of a rooming house containing five or more persons not related to the head, or the occupants of certain other types of living quarters, such as dormitories, military barracks, and institutions. The concept of quasi-household used in 1950 is thus similar to the concept of group quarters used in 1960. Moreover, except for the household concept, the 1960 definitions with respect to relationship to head of household are essentially the same as those used in 1950. However, the national statistics for certain relatively small categories by relationship and family status may have been significantly affected through the change in the household definition. The effects of this change were still under investigation when the present report was prepared. The change from dwelling unit to housing unit (and, therefore, by implication, the change in household definition) is discussed in *1960 Census of Housing*, Vol. IV, *Components of Inventory Change*, Part 1A. This report contains statistics on dwelling units based on the December 1959 Components of Inventory Change Survey which was part of the 1960 Census of Housing.

Complete-count versus sample figures on members of group quarters.—The number of inmates of institutions shown in the complete-count data for some small areas may differ from the corresponding number shown in the sample data because of errors in the classification of living quarters as an institution or other group quarters. Thus, secondary individuals in a few group quarters were misclassified as inmates in one of these two sources and correctly classified in the other. The opposite error, misclassification of inmates as secondary individuals, also occurred, but in fewer cases. Differences arising from these errors were usually caused by erroneous classification in the complete-count data rather than in the sample data. Revised figures for these areas

on the numbers of inmates and secondary individuals in group quarters have been prepared, where feasible, and are shown in the List of Corrections which begins on page XLVII.

MARRIED COUPLE, FAMILY, SUBFAMILY, CHILD, AND UNRELATED INDIVIDUAL

Married Couple

In the 1960 Census, a married couple is defined as a husband and his wife enumerated as members of the same household. Statistics on married couples were compiled in 1960 for persons in sample housing units only; data are not available for the very small number of married couples in group quarters. Married persons living with their spouse in group quarters were classified as "married, spouse absent." In 1950, the figures on married couples in quasi-households are available. For further discussion of this point, see section below on "Sample design."

The number of married couples, as shown in this report, is identical with the number of married men with wife present. By definition, the number of married couples in any area should also be identical with the number of married women with husband present; however, the two figures may not be exactly the same because of the method used in the weighting of the sample, as noted above in the section on "Marital status."

A "married couple with own household" is a married couple in which the husband is the household head; the number of such married couples is the same as the number of "husband-wife families with own household." In the tables in chapter B of this report, figures based on complete-count data are shown for women classified as wife of head of household.

Family

A family consists of two or more persons living in the same household who are related to each other by blood, marriage, or adoption; all persons living in one household who are related to each other are regarded as one family. Thus, if the son of the head of the household and the son's wife are members of the household, they are treated as part of the head's family. Not all households contain families, because a household may be composed of a group of unrelated persons or one person living alone. A few households contain more than one family, that is, two family groups in the same household in which none of the members of one family is related to any of the members of the other family. A "husband-wife family," as the term is used in the 1960 Census, is a family in which the head and his wife are enumerated as members of the same household.

Statistics on the total number of families were compiled in 1960 only for persons in the households that were in the sample. The 1950 Census data on families included those in quasi-households as well as those in households.

Statistics on the number of heads of "primary families" (that is, heads of households with relatives in the household) are shown on a complete-count basis in chapter B of this report. The number of husband-wife "secondary families" is the number of husband-wife families without their own household; these are families in which the members (lodgers or resident employees) are household members not related to the head of the household. Table 109 shows figures on the total number of "secondary families."

Subfamily

A subfamily is a married couple with or without own children, or one parent with one or more own children under 18 years old, living in a housing unit and related to the head of the household or his wife. The number of subfamilies is not included in the count of families. The number of husband-wife "subfamilies" (that is, the number of married couples without their own household who are living with relatives) may be obtained by subtracting the number of husband-wife families from the total number of married couples. Table 108 shows figures on the total number of subfamilies.

Child

Statistics on the presence of "own" children are shown here for married couples, families, subfamilies, and women 15 to 49 years old. An own child is defined, in this report, as a person under 18 years of age who is a single (never-married) son, daughter, stepchild, or adopted child of a family head or subfamily head. The number of "persons under 18 living with both parents" includes single stepchildren and adopted children as well as single sons and daughters born to the couple.

Data on women by age, classified by number of own children under 5 years old, provide a rough indication of how recent fertility has varied with age of woman. The age of the mother is known from information on the schedule for only those children who were living with their mother. Because the sample data on own children under 5 (in table 114) are inflated by the sample inflation weight of the mother rather than the sample inflation weight of the child, the results are not strictly comparable with the data on the total number of children under 5 years old shown in other tables in this report. Thus, the count of own children under 5 years old (living with their mother) exceeds the count of total population under 5 years old in some States, whereas it logically should be smaller by 1 to 3 percent for white children (because some children do not live with their mother) and much smaller for nonwhite children. (See also the section above on "Fertility ratios.")

Comparisons of figures on children under 18 years old of the household or family head with the total population in the same age group may also be affected by the fact that the parent's sample inflation weight was used in some tables (such as table 108), whereas the child's own sample inflation weight was used in others (such as table 106).

Tables 111, 112, and 140 show the number of "related children" under 18 years old in the family. These persons include not only "own" children, as defined above, but also all other family members under 18 (regardless of marital status) who are related to the head or wife by blood, marriage, or adoption.

After most of the State PC(1)-D final reports were published, a tabulation error was discovered in the number of children under 5 years old shown in table 114. If this State was affected by this error, corrected figures are presented in the List of Corrections which begins on page XLVII.

Unrelated Individual

As the term is used in the 1960 Census, an unrelated individual is either (1) a member of a household who is living entirely alone or with one or more persons all of whom are not related to him, or (2) a person living in group quarters who is not an inmate of an institution. Unrelated individuals who are household heads are called "primary individuals." Those who are not heads of households are called "secondary individuals." Statistics on primary individuals are presented in chapter B on the basis of complete-count data. Secondary individuals in households are shown in table 106 of chapter D; secondary individuals in group quarters constitute all persons in group quarters except inmates of institutions (table 107). Data for unrelated individuals by marital status and income are limited to persons 14 years old and over.

CHILDREN EVER BORN

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

P20. *If this is a woman who has ever been married—*
How many babies has she ever had, not counting stillbirths?
Do **not** count her stepchildren or adopted children.

..... **OR** None.. ☐
(Number)

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

The FOSDIC form for the sample data contained a terminal category of "12 or more" children ever born. For purposes of computing the total number of children ever born, the terminal category was given a mean value of 13.

Comparability

The wording of the question used in the 1960 Census differs slightly from that used in 1950. In that census, the question was, "How many children has she ever borne, not counting stillbirths?" The intent of the change was to make the question more understandable to respondents and to obtain a better count from the few women who might misinterpret the word "children" to mean only those who survived early infancy.

ECONOMIC CHARACTERISTICS

EMPLOYMENT STATUS

Definitions

The data on employment status were derived from answers to the following questions on the Household Questionnaire:

P22. Did this person work at any time last week?
Include part-time work such as a Saturday job, delivering papers, or helping without pay in a family business or farm. Do **not** count own housework.

Yes ☐ No ☐

P23. How many hours did he work last week (at all jobs)?
(If exact figure not known, give best estimate)

1 to 14 hours ☐	40 hours ☐
15 to 29 hours ☐	41 to 48 hours ☐
30 to 34 hours ☐	49 to 59 hours ☐
35 to 39 hours ☐	60 hours or more ☐

P24. Was this person looking for work, or on layoff from a job?

Yes ☐ No ☐

P25. Does he have a job or business from which he was temporarily absent all last week because of illness, vacation, or other reasons?

Yes ☐ No ☐

The series of questions on employment status are designed to identify, in this sequence: (*a*) Persons who worked at all during the reference week; (*b*) those who did not work but were looking for work or were on layoff; and (*c*) those who neither worked nor looked for work but had jobs or businesses from which they were temporarily absent. For those who worked during the reference week, a question was asked on hours of work.

Reference week.—In the 1960 Census, the data on employment refer to the calendar week prior to the date on which the respondents filled their Household Questionnaires or were interviewed by enumerators. This week is not the same for all respondents because not all persons were enumerated during the same week. The majority of the population was enumerated during the first half of April. The employment status data for the 1950 Census refer to the approximately corresponding period in 1950. The 1940 data, however, refer to a fixed week, March 24 to 30, 1940, regardless of the date of enumeration.

Employed.—Employed persons comprise all civilians 14 years old and over who were either (*a*) "at work"—those who did any work for pay or profit, or worked without pay for 15 hours or more on a family farm or in a family business; or (*b*) were "with a job but not at work"—those who did not work and were not looking for work but had a job or business from which they were temporarily absent because of bad weather, industrial dispute, vacation, illness, or other personal reasons. There appears to have been a tendency for seasonal workers, particularly nonwhite women in the rural South, to report themselves as "with a job but not at work" during the off-season.

Unemployed.—Persons are classified as unemployed if they were civilians 14 years old and over and not "at work" but looking for work. A person is considered as looking for work not only if he actually tried to find work during the reference week but also if he had made such efforts recently (i.e., within the past 60 days) and was awaiting the results of these efforts. Examples of looking for work are:

1. Registration at a public or private employment office.
2. Meeting with or telephoning prospective employers.
3. Being on call at a personnel office, at a union hall, or from a nurses' register or other similar professional register.
4. Placing or answering advertisements.
5. Writing letters of application.

Persons waiting to be called back to a job from which they had been laid off or furloughed were also counted as unemployed. Unemployed persons who have worked at any time in the past are classified as the "experienced unemployed."

Labor force.—The labor force includes all persons classified as employed or unemployed, as described above, and also members of the Armed Forces (persons on active duty with the U.S. Army, Air Force, Navy, Marine Corps, or Coast Guard). The "civilian labor force" comprises only the employed and unemployed components of the labor force. The "experienced civilian labor force" comprises the employed and the experienced unemployed.

Not in labor force.—This category consists of all persons 14 years old and over who are not classified as members of the labor force and includes persons doing only incidental unpaid work in a family farm or business (less than 15 hours during the week). Most of the persons in this category are students, housewives, retired workers, seasonal workers enumerated in an "off" season who were not looking for work, inmates of institutions, or persons who cannot work because of long-term physical or mental illness or disability. Of these groups not in the labor force, only inmates of institutions are shown separately.

Problems in Classification

Although the classification of the population by employment status is correct for most regular full-time workers, it is subject to error in marginal cases. Some of the concepts are difficult to apply; more important, for certain groups, the complete informa-

tion needed is not always obtained. For example, students or housewives may not consider themselves as working if their job required only a few hours of work a week.

Comparability

Statistics on gainful workers.—The data on the labor force for 1940, 1950, and 1960 are not entirely comparable with the statistics for gainful workers for years prior to 1940 because of differences in definition. "Gainful workers" were persons reported as having a gainful occupation, that is, an occupation in which they earned money or a money equivalent, or in which they assisted in the production of marketable goods, regardless of whether they were working or seeking work at the time of the census. A person was not considered to have had a gainful occupation if his activity was of limited extent.

The labor force is defined on the basis of activity during the reference week only and includes all persons who were employed, unemployed, or in the Armed Forces during that week. Certain classes of persons, such as retired workers, some inmates of institutions, recently incapacitated workers, and seasonal workers neither working nor seeking work at the time of the census, were frequently included among gainful workers; but in general, such persons are not included in the labor force. On the other hand, the census included in the labor force for 1940, 1950, and 1960 persons without previous work experience who were seeking work, that is, new workers; such new workers were probably not reported as gainful workers in the Censuses of 1920 and 1930.

1940 and 1950 Censuses.—The 1940 and 1950 Census questionnaires, interviewing techniques, and tabulation procedures differed somewhat from each other and from those used in the 1960 Census. In addition, modification in wording and some simplification in concepts were introduced in 1960, instead of using the Current Population Survey questions and concepts almost unchanged as was done in the 1950 Census. This was in recognition of the different tasks, motivation, and training of the enumerators in the CPS and the Census.

The so-called "main activity" question of 1950—"What was this person doing most of last week—working, keeping house, or something else?"—was omitted from the 1960 schedule on the assumption that the information obtained in that item (e.g., the knowledge that a person was primarily a housewife or a student) might induce enumerators, in direct interview situations, to omit the follow-up questions on work activity, job seeking, etc. It was felt that the loss of the classification of nonworkers (keeping house, in school, unable to work, and "other") shown in 1950 would not be serious. Actually the only group that cannot be approximated by means of data on marital status and school enrollment is the "unable to work" category.

The question on unemployment was revised in conformity with the classification under the 1957 CPS revision of the definition of persons on temporary (less than 30-day) layoff as unemployed, as well as with the previous implicit inclusion with the unemployed of those on "indefinite" layoff. Formerly, such persons were included among the employed. However, no mention was made either on the schedule or in instructions to enumerators of the other small categories of "inactive" unemployed covered under CPS concepts and in the 1950 and 1940 Censuses, that is, those who would have been looking for work except for temporary illness or belief that no suitable work was available in their community. The definition of "unpaid family work" was simplified to include any work done without pay in an enterprise operated by a relative, without further specifying (as in CPS and in the 1950 Census) that this relative had to be a member of the same household. In 1940, this relative had to be a member of the same family.

The 1940 data for the employed and unemployed in this report differ in some cases from the figures published for that census. Members of the Armed Forces living in the State in 1940 were originally included among employed persons. In this report, the figures for 1940 on employed persons have been adjusted to exclude the estimated number of men in the Armed Forces. Similarly, statistics for persons on public emergency work in 1940 were originally published separately, but in this report they have been combined with those for persons classified as unemployed.

Other data.—Because the 1960 Census employment data were obtained from respondents in households, they differ from statistics based on reports from individual business establishments, farm enterprises, and certain government programs. The data obtained from households provide information about the work status of the whole population without duplication. Persons employed at more than one job are counted only once in the census and are classified according to the job at which they worked the greatest number of hours during the reference week. In statistics based on reports from business and farm establishments, on the other hand, persons who work for more than one establishment may be counted more than once. Moreover, other series, unlike those presented here, may exclude private household workers, unpaid family workers, and self-employed persons, but may include workers less than 14 years of age.

An additional difference between the two kinds of data arises from the fact that persons who had a job but were not at work are included with the employed in the statistics shown here, whereas many of these persons are likely to be excluded from employment figures based on establishment payroll reports. Furthermore, the household reports include persons on the basis of their place of residence regardless of where they work, whereas establishment data report persons at their place of work regardless of where they live. This latter consideration is particularly significant when data are being compared for areas where a number of workers commute to or from other areas.

For a number of reasons, the unemployment figures of the Bureau of the Census are not comparable with published figures on unemployment compensation claims. Generally, persons such as private household workers, agricultural workers, State and local government workers, the self-employed, new workers, and workers whose rights to unemployment benefits have expired, are not eligible for unemployment compensation. Further, many employees of small firms are not covered by unemployment insurance. In addition, the qualifications for drawing unemployment compensation differ from the definition of unemployment used by the Bureau of the Census. Persons working only a few hours during the week and persons classified as "with a job but not at work" are sometimes eligible for unemployment compensation but are classified as "employed" in the census reports. Differences in the geographical distribution of unemployment data arise because the place where claims are filed may not necessarily be the same as place of residence of the unemployed worker.

HOURS WORKED

The statistics on hours worked pertain to the number of hours actually worked, and not necessarily to the number usually worked or the scheduled number of hours. For persons working at more than one job, the figures reflect the combined number of hours worked at all jobs during the week. The data on hours worked presented here provide a broad classification of persons at work into full-time and part-time workers. Persons are considered to be working full time if they worked 35 hours or more during the reference week and part time if they worked less than 35 hours. The proportion of persons who worked only a small number of hours is probably understated because such persons were omitted from the labor force count more frequently than were full-time workers. The comparability of data for 1960 and 1950 on hours worked may be affected by the fact that in 1950 a precise answer on number of hours was requested, whereas in 1960 check boxes were provided as shown in item P23.

WEEKS WORKED IN 1959

Definitions

The data on weeks worked in 1959 were derived from answers to the following two questions on the Household Questionnaire:

P30. Last year (1959), did this person work at all, even for a few days?

Yes.. ☐ No.. ☐

P31. How many weeks did he work in 1959, either full-time or part-time? Count paid vacation, paid sick leave, and military service as weeks worked.

(If exact figure not known, give best estimate)

13 weeks or less.. ☐	40 to 47 weeks... ☐
14 to 26 weeks.. ☐	48 to 49 weeks... ☐
27 to 39 weeks.. ☐	50 to 52 weeks... ☐

The data pertain to the number of different weeks during 1959 in which a person did any work for pay or profit (including paid vacation and sick leave) or worked without pay on a family farm or in a family business. Weeks of active service in the Armed Forces are also included. It is probable that the number of persons who worked in 1959 and the number of weeks they worked are understated, because there is some tendency for respondents to forget intermittent or short periods of employment, or they may have a tendency not to report weeks worked without pay.

Comparability

The comparability of data on weeks worked collected in the 1940 and 1950 Censuses with data collected in the 1960 Census may be affected by certain changes in the questionnaires. In the 1960 questionnaire, two separate questions were used to obtain this information. The first was used to identify persons with any work experience in 1959 and thus to indicate those for whom the questions on number of weeks worked and earned income were applicable. This procedure differs from that used in 1940 and 1950, when the schedules contained a single question regarding the number of weeks worked.

In 1940, the enumerator was instructed to convert part-time work to equivalent full-time weeks, whereas in 1950 and 1960 no distinction was made between a part-time and a full-time work week. The 1940 procedure was to define as a full-time week the number of hours locally regarded as full time for the given occupation and industry. Furthermore, in the 1940 reports, the data were shown for wage and salary workers only and were published in terms of months rather than weeks.

YEAR LAST WORKED

The data on year last worked were obtained for the first time in the 1960 Census. They were derived from answers to the following question on the Household Questionnaire:

P26. When did he last work at all, even for a few days?

(Check one box)

Working now.. ☐	1949 or earlier... ☐
In 1960..... ☐	
In 1959..... ☐	Never worked..... ☐
1955 to 1958.. ☐	
1950 to 1954.. ☐	

The "year last worked" pertains to the most recent year in which a person did any work for pay or profit, or worked without pay on a family farm or in a family business. Active service in the Armed Forces is also included. Data derived from this item were tabulated for persons classified as not in the labor force and for persons classified as unemployed.

There are several reasons for introducing this item into the census. The data provide a means of evaluating the current applicability and signficance of the inventory of the occupational skills for those persons not in the labor force, and the tabulations resulting from the cross-classifications of this information provide data on the demographic characteristics of the labor reserve. Also, the data give some indication of the duration of unemployment for persons seeking jobs.

OCCUPATION, INDUSTRY, AND CLASS OF WORKER

The data on occupation, industry, and class of worker were derived from answers to the following question on the Household Questionnaire:

P27. Occupation *(Answer 1, 2, or 3)*

1. This person **last** worked in 1949 or earlier... } ☐
   This person has never worked..... }

OR

2. On active duty in the Armed Forces now..... ☐

OR

3. Worked in 1950 or later.. ☐ *Answer a to e, below.*

Describe this person's job or business last week, if any, and write in name of employer. If this person had no job or business last week, give information for last job or business since 1950.

a. For whom did he work?

.....

(Name of company, business, organization, or other employer)

b. What kind of business or industry was this?

Describe activity at location where employed.

.....

(For example: County junior high school, auto assembly plant, TV and radio service, retail supermarket, road construction, farm)

c. Is this primarily: *(Check one box)*

Manufacturing..... ☐
Wholesale trade..... ☐
Retail trade..... ☐
Other (services, agriculture, government, construction, etc.)... ☐

d. What kind of work was he doing?

.....

(For example: 8th grade English teacher, paint sprayer, repairs TV sets, grocery checker, civil engineer, farmer, farm hand)

e. Was this person: *(Check one box)*

Employee of **private** company, business, or individual, for wages, salary, or commissions..... ☐
Government employee (Federal, State, county, or local)..... ☐
Self-employed in **own** business, professional practice, or farm..... ☐
Working **without pay** in a family business or farm..... ☐

In the 1960 Census, information on occupation, industry, and class of worker was collected for persons in the experienced civilian labor force as well as for persons not in the current labor force but who had worked sometime during the period 1950 to April 1960. All three items related to one specific job held by the person. For an employed person, the information referred

to the job he held during the reference week. If he was employed at two or more jobs, the job at which he worked the greatest number of hours during the reference week was reported. For experienced unemployed persons, i.e., unemployed persons who have had previous job experience, and for those not in the labor force, the information referred to the last job that had been held.

The classification systems used for the occupation and industry data in the 1960 Census described below were developed in consultation with many individuals, private organizations, government agencies, and, in particular, the Interagency Occupational Classification Committee of the U.S. Bureau of the Budget.

Occupation

Classification system.—The occupational classification system is organized into 12 major groups. It consists of 494 items, 297 of which are specific occupation categories and the remainder are subgroupings (mainly on the basis of industry) of 13 of the occupation categories. The composition of the 297 categories is shown in the publication, U.S. Bureau of the Census, *1960 Census of Population, Classified Index of Occupations and Industries*, U.S. Government Printing Office, Washington, D.C., 1960.

For the presentation of occupation data in chapter C, a condensed set of categories is used for employed persons in certain tables and the 12 major groups for employed persons in other tables as well as for experienced unemployed persons. The condensed set consists of 31 categories for males and 23 categories for females (including the subdivisions by industry and class of worker). The composition of most of these categories in terms of specific occupation categories can be readily determined by reference to detailed occupation table 120 in chapter D. The following list shows the components of the condensed categories whose composition may not be readily determined:

Construction craftsmen.—Includes brickmasons, carpenters, cement and concrete finishers, electricians, excavating, grading, and road machinery operators, painters (construction and maintenance), paperhangers, pipefitters, plasterers, plumbers, roofers and slaters, stone masons, structural metal workers, tile setters.

Drivers and deliverymen.—Includes bus drivers, chauffeurs, deliverymen, routemen, taxicab drivers, truck and tractor drivers.

Medical and other health workers.—Includes chiropractors, dentists, dietitians, healers, medical and dental technicians, nutritionists, optometrists, osteopaths, pharmacists, physicians and surgeons, professional nurses, student professional nurses, psychologists, therapists, veterinarians.

Metal craftsmen, except mechanics.—Includes blacksmiths, boilermakers, coppersmiths, die makers and setters, forgemen and hammermen, heat treaters, annealers and temperers, machinists, metal jobsetters and molders, metal rollers and roll hands, millwrights, pattern and model makers (except paper), sheet metal workers, tinsmiths, toolmakers.

In chapter D, several levels of classification are used. The most detailed list appears in tables 120 and 121; for the purposes of these tables, certain categories were combined and the list consists of 479 items (rather than 494). For the cross-tabulations by race, class of worker, year last worked for experienced workers not in the current labor force, age, earnings, and industry, use has been made of intermediate occupational classifications with 161 categories for males and 70 for females (tables 122 to 124). The occupation stub for table 125 consists of 57 categories for males and 30 for females. Both of these levels represent selections and combinations of the items in the detailed system. A listing of the relationships between the levels of classification can be obtained by writing to the Chief, Population Division, Bureau of the Census, Washington 25, D.C. This listing will also appear in Part 1 (U.S. Summary) of this volume.

In the separation of "Managers, officials, and proprietors (n.e.c.)" by class of worker into salaried and self-employed components, the small number of unpaid family workers in this occupation is included in the self-employed component. Since the data presented in the occupation tables refer only to civilians, the category "former members of the Armed Forces" shown in table 120 is limited to experienced unemployed persons whose last job was as a member of the Armed Forces.

Relation to DOT classification.—The occupational classification of the Population Census is generally comparable with the system used in the *Dictionary of Occupational Titles* (DOT).[6] The two systems, however, are designed to meet different needs and to be used under different circumstances. The DOT system is designed primarily for employment service needs, such as placement and counseling, and is ordinarily used to classify very detailed occupational information obtained in an interview with the worker himself. The census system, on the other hand, is designed for statistical purposes and is ordinarily used in the classification of limited occupational descriptions obtained in a self-enumeration questionnaire or in an interview with a member of the worker's family. As a result, the DOT system is much more detailed than the census system; and it also calls for many types of distinctions which cannot be made from census information.

Industry

Classification system.—The industrial classification system developed for the 1960 Census is organized into 13 major industry groups and consists of 151 items (two of which are the government and private subgroupings of the category "Educational services"). The composition of each specific category is shown in the above-mentioned *Classified Index of Occupations and Industries*.

Several different levels of classification are used in this volume. The most detailed industry list appears in chapter D, tables 126 and 127; two combinations were made for the purposes of these tables and thus the list consists of 149 categories. In chapter C, a 40-item condensed grouping is used. In chapter D, for cross-tabulations by age, race, class of worker, and earnings, an intermediate industrial classification of 71 categories has been used (tables 128 to 130). The industry list for table 125 consists of 43 categories. The industry list for nonwhite workers in table 130 consists of 42 categories for male and 28 for female. These intermediate classifications represent selections and combinations of the categories in the detailed system. The relationships among the 40-, 71-, and 149-category levels of classification are shown in List A. Further information on the intermediate classifications can be obtained by writing to the Chief, Population Division, Bureau of the Census, Washington 25, D.C.

Relation to Standard Industrial Classification.—List A shows for each Population Census category the code designation of the similar category or categories in the Standard Industrial Classification (SIC).[7] This relationship is presented here for general information purposes only and does not imply complete comparability. The SIC, which was developed under the sponsorship of the U.S. Bureau of the Budget, is designed for the classification of industry reports from establishments. These reports, by their nature and degree of detail, produce considerably different data on industry from those obtained from household enumeration such as the Census of Population. As a result, some of the distinctions called for in the SIC cannot be made in the 1960 Census.

Furthermore, the data from the Census of Population are designed to meet different needs from those met by the establishment data. The allocation of government workers represents perhaps the most basic difference between the two systems. The SIC classifies all government agencies in a single major group. In the Population Census system, however, the category "public administration" includes only those activities which are uniquely

[6] See U.S. Department of Labor, Bureau of Employment Security, *Dictionary of Occupational Titles*, Second Edition, Vols. I and II, Washington, D.C., 1949.

[7] See Executive Office of the President, Bureau of the Budget, *Standard Industrial Classification Manual* (1957). For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.

governmental functions, such as legislative and judicial activities and most of the activities in the executive agencies. Government agencies engaged in educational and medical services and in activities commonly carried on also by private enterprises, such as transportation and manufacturing, are classified in the appropriate industrial category. For example, persons employed by a hospital are classified in the "hospitals" group, regardless of whether they are paid from private or public funds. Information on the total number of government workers appears in the tables on class of worker.

Relation to certain occupation groups.—In the Population Census classification systems, the industry category "agriculture" is somewhat more inclusive than the total of the two major occupation groups, "farmers and farm managers" and "farm laborers and foremen." The industry category also includes (*a*) persons employed on farms in occupations such as truck driver, mechanic, and bookkeeper, and (*b*) persons engaged in agricultural activities other than strictly farm operation, such as crop dusting or spraying, cotton ginning, and landscape gardening. Similarly, the industry category "private households" is somewhat more inclusive than the major occupation group "private household workers." In addition to the baby sitters, housekeepers, laundresses, and miscellaneous types of domestic workers covered by the major occupation group, the industry category includes persons in occupations such as chauffeur, gardener, and secretary, if they are employed by private families.

Class of Worker

The class-of-worker information refers to the same job as the occupation and industry information. The assignment of a person to a particular class-of-worker category is basically independent, however, of the occupation or industry in which he worked. The classification by class of worker consists of four categories which are defined as follows:

1. *Private wage and salary workers.*—Persons who worked for a private employer for wages, salary, commission, tips, pay-in-kind, or at piece rates.
2. *Government workers.*—Persons who worked for any governmental unit (Federal, State, local, or international), regardless of the activity which the particular agency carried on.
3. *Self-employed workers.*—Persons who worked for profit or fees in their own business, profession, or trade, or who operated a farm either as an owner or tenant. Included here are the owner-operators of large stores and manufacturing establishments as well as small merchants, independent craftsmen and professional men, farmers, peddlers, and other persons who conducted enterprises of their own. Persons paid to manage businesses owned by other persons or by corporations, on the other hand, are classified as private wage and salary workers (or, in some few cases, as government workers).
4. *Unpaid family workers.*—Persons who worked without pay on a farm or in a business operated by a person to whom they are related by blood or marriage. The great majority of unpaid family workers are farm laborers.

The relatively small number of employed persons for whom class of worker was not reported have been included among private wage and salary workers unless there was evidence on the census schedule that they should have been classified in one of the other class-of-worker categories.

Special Editing Procedures

A factor to be considered in the interpretation of these data is that respondents sometimes returned occupation and industry designations which were not sufficiently specific for precise classification. Indefinite occupation and industry returns were frequently assigned, however, to the appropriate category through the use of supplementary information. For example, the name of the employer or the industry return on the census schedule was often of great assistance in determining occupation. The name of the employer (company name) was used extensively to assign the proper industrial classification using lists of employers showing their industrial classification in the 1958 Economic Censuses. In the coding of indefinite industry returns, helpful information was frequently obtained from other sources regarding the types of industrial activity in the given area or of the given company.

Comparability

Earlier censuses.—The changes in schedule design and interviewing techniques for the labor force questions, described in the section on "Employment status," have little effect on the comparability between 1940, 1950, and 1960 for most of the occupation, industry, and class-of-worker categories. For experienced unemployed persons, however, the 1950 and 1960 occupation data are not comparable with the data for the United States shown in Volume III of the 1940 reports on population, *The Labor Force.* The occupation data for public emergency workers (one of the two component groups of the unemployed in 1940) referred to "current job," whereas the "last job" of the unemployed was reported in 1950 and 1960.

The occupational and industrial classification systems used in 1940 and 1950 are basically the same as those of 1960. There are a number of differences, however, in the title and content for certain items, as well as in the degree of detail shown for the various major groups. For 1930 and earlier censuses, the occupational and industrial classification systems were markedly different from the 1960 systems. The 1940 and 1950 classification by class of worker is comparable with the 1960 categories. The following publications contain much helpful information on the various factors of comparability and are particularly useful for understanding differences in the occupation and industry information from earlier censuses: U.S. Bureau of the Census, Sixteenth Census Reports, Population, *Comparative Occupation Statistics for the United States, 1870 to 1940*, and Bureau of the Census Working Paper No. 5, *Occupational Trends in the United States, 1900 to 1950*, 1958.

The 1940 and 1950 occupation and industry data shown in this report include adjustments which take account of the differences between the 1940, 1950, and 1960 classification systems. In order to make available as much comparable data as possible, it was sometimes necessary to estimate the adjustments from information which was incomplete or not entirely satisfactory for the purpose. Furthermore, there were certain differences among the 1940, 1950, and 1960 coding and editing procedures which could not be measured statistically. Caution should, therefore, be exercised in interpreting small numerical changes.

The 1940 data on occupation, industry, and class of worker shown in this report have been revised to eliminate members of the Armed Forces in order to achieve comparability with the 1950 and 1960 figures for the employed, which are limited to civilians. In the occupation tables of the 1940 reports, the Armed Forces were mainly included in the major group "protective service workers." In the industry tables, the Armed Forces were all included in the major group "government." In the class-of-worker tables, the Armed Forces were all included in the category "government workers" and in the total "wage or salary workers."

Other data.—Comparability between the statistics presented in this volume and statistics from other sources is frequently affected by the use of different classification systems, as well as by many of the factors described in the paragraphs on comparability with other data in the section on "Employment status." Occupation figures from the Population Census are not always directly comparable with data from government licensing agencies, professional associations, trade unions, etc. Among the sources of difference may be the inclusion in the organizational listing of retired persons or persons devoting all or most of their time to another occupation, the inclusion of the same person in two or more different listings, and the fact that relatively few organizations attain complete coverage of membership in an occupation field.

List A.—RELATIONSHIPS AMONG INDUSTRIAL CLASSIFICATION SYSTEMS USED IN THE 1960 CENSUS OF POPULATION

[Figures in parentheses in the third column are code designations in the Standard Industrial Classification; see text for explanation]

Condensed classification—40 items	Intermediate classification—71 items	Detailed classification—149 items
Agriculture	Agriculture	Agriculture (01, 02, 07 except 0713).
Forestry and fisheries	Forestry and fisheries	Forestry (08). Fisheries (09).
Mining	Mining	Metal mining (10). Coal mining (11, 12). Crude petroleum and natural gas extraction (13). Nonmetallic mining and quarrying, except fuel (14).
Construction	Construction	Construction (15–17).
Furniture and lumber and wood products	Logging	Logging (241).
	Sawmills, planing mills, millwork and miscellaneous wood products.	Sawmills, planing mills and millwork (242, 243). Miscellaneous wood products (244, 249).
	Furniture and fixtures	Furniture and fixtures (25).
Primary metal industries	Primary iron and steel industries	Blast furnaces, steel works, and rolling and finishing mills (3312, 3313). Other primary iron and steel industries (3315–3317, 332, 3391, 3399 [1]).
	Primary nonferrous industries	Primary nonferrous industries (333–336, 3392, 3399 [1]).
Fabricated metal industries (incl. not specified metal).	Fabricated metal industries (incl. not specified metal)	Cutlery, hand tools and other hardware (342). Fabricated structural metal products (344). Miscellaneous fabricated metal products (341, 343, 345–349, 19 except 194). Not specified metal industries.[2]
Machinery, except electrical	Machinery, except electrical	Farm machinery and equipment (352). Office, computing, and accounting machines (357). Miscellaneous machinery (351, 353–356, 358, 359).
Electrical machinery, equipment, and supplies	Electrical machinery, equipment, and supplies	Electrical machinery, equipment, and supplies (36).
Motor vehicles and motor vehicle equipment	Motor vehicles and motor vehicle equipment	Motor vehicles and motor vehicle equipment (371).
Transportation equipment, except motor vehicles.	Aircraft and parts	Aircraft and parts (372).
	Other transportation equipment	Ship and boat building and repairing (373). Railroad and miscellaneous transportation equipment (374, 375, 379).
Other durable goods	Stone, clay, and glass products	Glass and glass products (321–323). Cement, and concrete, gypsum, and plaster products (324, 327). Structural clay products (325). Pottery and related products (326). Miscellaneous nonmetallic mineral and stone products (328, 329).
	All other durable goods	Professional equipment and supplies (381–385, 194). Photographic equipment and supplies (386). Watches, clocks, and clockwork-operated devices (387). Miscellaneous manufacturing industries (39).
Food and kindred products	Meat products	Meat products (201).
	Bakery products	Bakery products (205).
	Other food industries	Dairy products (202). Canning and preserving fruits, vegetables, and sea foods (203). Grain-mill products (204, 0713). Confectionery and related products (207). Beverage industries (208). Miscellaneous food preparations and kindred products (206, 209). Not specified food industries.[2]
Textile mill products	Knitting mills	Knitting mills (225).
	Yarn, thread, and fabric mills	Yarn, thread, and fabric mills (221–224, 228).
	Other textile mill products	Dyeing and finishing textiles, except wool and knit goods (226). Floor coverings, except hard surface (227). Miscellaneous textile mill products (229).
Apparel and other fabricated textile products	Apparel and other fabricated textile products	Apparel and accessories (231–238). Miscellaneous fabricated textile products (239).
Printing, publishing, and allied products	Printing, publishing, and allied industries	Newspaper publishing and printing (271). Printing, publishing, and allied industries, except newspapers (272–279).
Chemicals and allied products	Chemicals and allied products	Synthetic fibers (2823, 2824). Drugs and medicines (283). Paints, varnishes, and related products (285). Miscellaneous chemicals and allied products (281, 282 except 2823 and 2824, 284, 286–289).
Other nondurable goods (incl. not specified manufacturing industries).	Paper and allied products	Pulp, paper, and paperboard mills (261–263, 266). Paperboard containers and boxes (265). Miscellaneous paper and pulp products (264).
	Petroleum and coal products	Petroleum refining (291). Miscellaneous petroleum and coal products (295, 299).
	Rubber and miscellaneous plastic products	Rubber products (301–303, 306). Miscellaneous plastic products (307).
	Footwear, except rubber	Footwear, except rubber (313, 314).
	All other nondurable goods	Tobacco manufactures (21). Leather products, except footwear (312, 315–317, 319). Leather: tanned, curried, and finished (311).
	Not specified manufacturing industries	Not specified manufacturing industries.[2]
Trucking service and warehousing	Trucking service and warehousing	Trucking service (421, 423). Warehousing and storage (422).
Railroads and railway express service	Railroads and railway express service	Railroads and railway express service (40).
Other transportation	Street railways and bus lines	Street railways and bus lines (411, 413–415, 417).
	Water transportation	Water transportation (44).
	Air transportation	Air transportation (45).
	All other transportation	Taxicab service (412). Petroleum and gasoline pipe lines (46). Services incidental to transportation (47).

See footnotes at end of list.

List A.—RELATIONSHIPS AMONG INDUSTRIAL CLASSIFICATION SYSTEMS USED IN THE 1960 CENSUS OF POPULATION—Continued

Condensed classification—40 items	Intermediate classification—71 items	Detailed classification—149 items
Communications	Communications	Radio broadcasting and television (483). Telephone (wire and radio) (481). Telegraph (wire and radio) (482, 489).
Utilities and sanitary services	Electric and gas utilities	Electric light and power, and electric-gas utilities (491, 493).[3] Gas and steam supply systems (492, 496).
	Water supply, sanitary services, and other utilities	Water supply (494). Sanitary services (495). Other and not specified utilities (497).
Wholesale trade	Wholesale trade	Motor vehicles and equipment (501). Drugs, chemicals, and allied products (502). Dry goods and apparel (503). Food and related products (504). Farm products—raw materials (505). Electrical goods, hardware, and plumbing equipment (506, 507). Machinery, equipment, and supplies (508). Petroleum products (5092). Miscellaneous wholesale trade (5091, 5093–5099). Not specified wholesale trade.[2]
Food and dairy products stores	Food and dairy products stores and milk retailing	Food and dairy products stores (54).[4]
Eating and drinking places	Eating and drinking places	Eating and drinking places (58).
Other retail trade	General merchandise and limited price variety stores	General merchandise retailing (53 except 533). Limited price variety stores (533).
	Apparel and accessories stores	Apparel and accessories stores, except shoe stores (56 except 566). Shoe stores (566).
	Furniture, home furnishings, and equipment stores	Furniture and housefurnishings stores (571). Household appliance, TV, and radio stores (572, 573).
	Motor vehicles and accessories retailing	Motor vehicles and accessories retailing (55 except 554).
	Gasoline service stations	Gasoline service stations (554).
	Drug stores	Drug stores (591).
	Hardware, farm implement, and building material retailing.	Hardware and farm equipment stores (525). Lumber and building material retailing (521–524).
	All other retail trade	Liquor stores (592). Retail florists (5992). Jewelry stores (597). Fuel and ice dealers (598). Miscellaneous retail stores (593–596, 599 except 5992). Not specified retail trade.[2]
Finance, insurance and real estate	Banking and other finance	Banking and credit agencies (60, 61). Security and commodity brokerage and investment companies (62, 67).
	Insurance and real estate	Insurance (63, 64). Real estate (incl. real estate-insurance-law offices) (65, 66).
Business services	Business services	Advertising (731). Miscellaneous business services (732–736, 739).
Repair services	Automobile repair services and garages	Automobile repair services and garages (75).
	Miscellaneous repair services	Miscellaneous repair services (76).
Private households	Private households	Private households (88).
Other personal services	Hotels and lodging places	Hotels and lodging places (70).
	Laundering, cleaning, and dyeing services	Laundering, cleaning, and dyeing services (721, 727).
	All other personal services	Dressmaking shops (729).[5] Shoe repair shops (725). Barber and beauty shops (723, 724). Miscellaneous personal services (722, 726, 729).[5]
Entertainment and recreation services	Entertainment and recreation services	Theaters and motion pictures (78, 792). Bowling alleys and billiard and pool parlors (793). Miscellaneous entertainment and recreation services (791, 794).
Hospitals	(6)	
Educational services, government	Educational services, government	Educational services, government } (82, 84).
Educational services, private	Educational services, private	Educational services, private } (82, 84).
Welfare, religious and nonprofit membership organizations.	Welfare, religious, and membership organizations	Nonprofit membership organizations (861–865, 869). Welfare and religious services (866, 867).
Other professional and related services	Legal, engineering, and miscellaneous professional services	Legal services (81). Engineering and architectural services (891). Accounting, auditing, and bookkeeping services (893). Miscellaneous professional and related services (892, 899).
	Medical and other health services[6]	Medical and other health services, except hospitals (80 except 806). Hospitals (806).
Public administration	Postal service	Postal service } (91, 94).[7]
	Federal public administration	Federal public administration } (91, 94).[7]
	State and local public administration	State public administration (92).[7] Local public administration (93).[7]
Industry not reported	Industry not reported	Industry not reported (99).

NOTE: See Executive Office of the President, Bureau of the Budget, *Standard Industrial Classification Manual*, 1957 edition.

[1] The components of SIC category 3399 are allocated between "Other primary iron and steel industries" and "Primary nonferrous industries" on a ferrous-nonferrous basis.

[2] In the Population Census system, "not specified" categories were set up within certain groups to take care of schedule returns which were not sufficiently precise for allocation to a specific category within the group.

[3] This item represents a combination of two categories in the 1960 Census industrial classification system—"Electric light and power" and "Electric-gas utilities."

[4] This item represents a combination of two categories in the 1960 Census industrial classification system—"Food stores, except dairy products" and "Dairy products stores and milk retailing."

[5] Dressmaking shops are separated from the rest of the SIC category 729 which is included in "Miscellaneous personal services."

[6] The category "Hospitals," which appears as a separate item in the condensed classification, is included in "Medical and other health services" in the intermediate classification.

[7] See text for explanation of basic difference between SIC and Population Census in classification of government workers.

PLACE OF WORK AND MEANS OF TRANSPORTATION TO WORK

Data on place of work and means of transportation to work were obtained for the first time in the 1960 Census. They were derived from answers to the following questions on the Household Questionnaire:

If this person worked last week, answer questions P28 and P29.

P28. What city and county did he work in last week?
If he worked in more than one city or county, give place where he worked most last week.

a. City or town . . . . . .

b. If city or town—**Did he work inside the city limits?** . . . . . Yes . . ☐ No . . ☐

c. County . . . . . State . . . . . .

P29. How did he get to work last week?
(Check one box for principal means used last week)

Railroad . . . . ☐ Taxicab . . . . . ☐ Walk only . . . . ☐
Subway or elevated . . . . ☐ Private auto or car pool . . ☐ Worked at home . . . . . ☐
Bus or streetcar . . . . ☐ Other means—*Write in:* . . . . . .

Place of Work

Place of work refers to the geographic location in which civilians at work during the reference week and Armed Forces personnel not on leave, sick, etc., carried out their occupational or job activities. In chapter C, place of work is classified simply as to whether it was in the same county (or equivalent area) as the worker's county of residence or in a different county.

These work locations were classified in two ways in chapter D. For the standard metropolitan statistical areas in table 131, the locations are: (1) Central city (or cities) of the SMSA, (2) ring (or outlying parts) of the SMSA, and (3) the area outside the SMSA. For the State statistics in table 132, the areas are: (1) State of residence, (2) specified States contiguous to the State of residence, and (3) noncontiguous States.

Persons working at more than one job were asked to report on the job at which they worked the greatest number of hours during the census week. Salesmen, deliverymen, and others who work in several places each week were requested to name the place in which they began work each day, if they reported to a central headquarters. In cases in which work was not begun at a central place each day, the person was asked to report the county in which he had worked the greatest number of hours during the previous week.

During the tabulation of statistics on place of work, it was discovered that some enumerators working in counties containing central cities of SMSA's, but outside the cities themselves, had failed to identify correctly these central cities as places of work. For the convenience of the enumerator and the coder, the FOSDIC document contained a circle for "this city" for indicating that the place of work was in the respondent's city or town of residence. Some enumerators understood this category to refer to a nearby large city and filled the circle when they should have written in the name of that city in P28a. Since the city that actually contained the place of work was frequently a central city of an SMSA, the statistics in table 131 were impaired.

After a limited study of the relevant materials, including some of the Household Questionnaires (which gave the respondent's own written reply), it was decided that a simple mechanical edit would tend to improve the statistics. This mechanical edit applies to entries for workers living in unincorporated parts of counties containing the central city of an SMSA (or other city with a population of 50,000 or more). For these workers, a workplace code of "this city" was tabulated as the largest city in the county. This edit was not used in New England, New Jersey, or the urban townships of Pennsylvania since it was considered likely that the category "this city" was used to refer to the town or township rather than to the large city. For the same reason, in all States, entries for workers living in incorporated places were not edited. Finally, codes of "this city" for workers living in unincorporated areas outside counties containing central cities of SMSA's (or other city of 50,000 or more) were tabulated as "balance of county" since it was not clear what city, if any, was intended.

Later, a national sample of reports of place of work was assembled for the purposes of estimating the magnitude of the error before and after the corrective edit. On a national basis, excluding from consideration New England States and New Jersey, it appears that the published statistics are substantially better than would have been the case had the corrective edit been omitted. The number of workers residing outside central cities in the balances of central counties and working in the central cities appeared to be considerably understated before the correction and only slightly overstated, in net effect, after the correction. For the workers who were residing in parts of central counties located in incorporated places and in urban townships in Pennsylvania, there still remains a small understatement of reports of place of work in central cities. Moreover, it is probable that there is also some understatement of commuting to central cities from outside the central counties. It was not feasible to estimate the error or take corrective action for these more distant areas. Therefore, it cannot be readily determined whether the total number of commuters to central cities of SMSA's is overstated or understated in the published statistics. This edit was further refined for the tabulations in chapter D; therefore, some minor inconsistencies in the data on both place of work and means of transportation are apparent between chapter D and chapter C, especially for areas containing military installations. Both before and after the corrective edit, there was considerable variation in the error rate from one SMSA to another. Hence, caution should be exercised in using the statistics for particular areas (especially in table 131).

Means of Transportation to Work

Means of transportation to work refers to the principal mode of travel or type of conveyance used in traveling to and from work by civilians at work during the reference week and Armed Forces personnel not on leave, sick, etc. In this report, the categories "railroad" and "subway or elevated" were combined, and "taxicab" was included in "other means." The enumerator was instructed that "principal means" referred to the means of transportation covering the greatest distance, if more than one means was used in daily travel, or to the means of transportation used most frequently, if different means were used on different days. "Bus or streetcar" was defined as referring to vehicles operating within or between cities on public streets or highways. The facts that the items on place of work and means of transportation refer to the job held "last week" (see section on "Employment status") and that the worker may have subsequently changed his usual place of residence may explain some impossible or unlikely commuting patterns for particular areas.

INCOME IN 1959

Definitions

The data on income were derived from answers to the following questions on the Household Questionnaire:

P32. How much did this person earn in 1959 in wages, salary, commissions, or tips from all jobs?

Before deductions for taxes, bonds, dues, or other items. *(Enter amount or check "None." If exact figure not known, give best estimate.)*

$.....00 OR None..☐
(Dollars only)

P33. How much did he earn in 1959 in profits or fees from working in his own business, professional practice, partnership, or farm?

Net income after business expenses. *(Enter amount or check "None." If exact figure not known, give best estimate. If business or farm lost money, write "Loss" after amount.)*

$.....00 OR None..☐
(Dollars only)

P34. Last year (1959), did this person receive any income from:

Social security
Pensions
Veteran's payments
Rent (minus expenses)
Interest or dividends
Unemployment insurance
Welfare payments
Any other source not already entered

Yes..☐ No..☐

What is the amount he received from these sources in 1959? *(If exact figure not known, give best estimate)*

$.....00
(Dollars only)

Information on income for the calendar year 1959 was requested from all persons 14 years old and over in the sample. "Total income" is the sum of the amounts reported in P32 (wage or salary income), P33 (self-employment income), and P34 (other income). Earnings were obtained by summing wage or salary and self-employment income. The figures represent the amount of income received before deductions for personal income taxes, Social Security, bond purchases, union dues, etc.

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; withdrawals of bank deposits; money borrowed; tax refunds; gifts and lump-sum inheritances or insurance benefits.

Wage or salary income.—This is defined as the total money earnings received for work performed as an employee. It includes wages, salary, pay from Armed Forces, commissions, tips, piece-rate payments, and cash bonuses earned.

Self-employment income.—This is defined as net money income (gross receipts minus operating expenses) from a business, farm, or professional enterprise in which the person was engaged on his own account. Gross receipts include the value of all goods sold and services rendered. Expenses include the costs of goods purchased, rent, heat, light, power, depreciation charges, wages and salaries paid, business taxes, etc.

Income other than earnings.—This includes money income received from sources other than wages or salary and self-employment, such as net income (or loss) from rents or receipts from roomers or boarders; royalties; interest, dividends, and periodic income from estates and trust funds; Social Security benefits; pensions; veterans' payments, military allotments for dependents, unemployment insurance, and public assistance or other governmental payments; and periodic contributions for support from persons who are not members of the household, alimony, and periodic receipts from insurance policies or annuities.

This report presents information on income for families and unrelated individuals and for persons 14 years old and over by detailed characteristics. Data are also presented for 4-person husband-wife families with two (own) children under 18 in which the head was an earner, including families in which there were one or more additional earners.[8]

In the statistics on family income, the combined incomes of all members of each family are treated as a single amount; whereas in the statistics on the income of unrelated individuals and in those on the income of persons 14 years old and over the classification is by the amount of their own income. Although the time period covered by the income statistics is the calendar year 1959, the characteristics of persons and the composition of families refer to the time of enumeration. Thus, the income of the family does not include amounts received by persons who were members of the family during all or part of the calendar year 1959 if these persons no longer resided with the family at the time of the interview. On the other hand, family income includes amounts reported by related persons who did not reside with the family during 1959 but who were members of the family at the time of enumeration. For most of the families, however, the income reported was received by persons who were members of the family throughout 1959.

Median and Mean Income

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 total number of families and unrelated individuals; whereas for persons the medians are based on the distributions of persons 14 years old and over with income.

The mean income is the amount obtained by dividing the total income of a group by the number of income recipients in that group. For wage or salary income and self-employment income, the means are based on persons having those types of income. In the derivation of aggregate amounts, persons in the open-end interval "$25,000 and over" were assigned an estimated mean of $50,000.

Limitations of the Data

The schedule entries for income are frequently based not on records but on memory, and this factor probably produces underestimates, because the tendency of respondents is to forget minor or irregular sources of income. Other errors of reporting are due to misunderstanding of the income questions or to misrepresentation.

A possible source of understatement in the income figures was the failure, on occasion, to obtain from the respondent any report on "other money income." For these cases, the assumption was made in the editing process that no income other than earnings was received by a person who reported the receipts of either wage or salary income or self-employment income. Where no income information for a person 14 years old and over was reported, a more elaborate editing procedure was used, as described below in the section on "Editing of unacceptable data." Appendix tables C–2 and C–3 indicate the extent to which income in 1959 was allocated for families and persons 14 years old and over. Because of an error in programing the tabulations, however, the nonresponse rates for families shown in these tables are somewhat overstated. This error is described in more detail in the section below on "Extent and implications of editing."

The income tables for families and unrelated individuals include in the lowest income group (under $1,000) those that were

[8] Because of a processing error, the data on this subject shown in tables 65, 76, and 86 were mislabeled in a number of States. To determine whether this State is one of those affected, see "List of Corrections" on page xlvii.

classified as having no 1959 income, as defined in the census. Many of these were living on income "in kind," savings, or gifts, were newly constituted families, or were unrelated individuals who recently left families, or were families in which the sole breadwinner had recently died or had left the household. However, many of the families and unrelated individuals who reported no income probably had some money income which was not recorded in the census.

The income data in this report cover money income only. The fact that many farm families receive an important part of their income in the form of rent-free housing and of goods produced and consumed on the farm rather than in money should be taken into consideration in comparing the income of farm and nonfarm residents. In comparing income data for 1959 with earlier years, it should be noted that an increase or decrease in money income between 1949 and 1959 does not necessarily represent a comparable change in real income, because adjustments for changes in prices have not been made in this report.

Comparability

1940 and 1950 Censuses.—In 1950, information on income similar to that requested in 1960 was obtained from a 20-percent sample of persons 14 years old and over. If the sample person was the head of a family, the income questions were repeated for the other family members as a group in order to obtain the income of the whole family. In 1960, however, separate income data were requested for each person 14 years old and over in the sample household.

In tabulating family income for the 1950 Census, if only the head's income was reported, the assumption was made that there was no other income in the family. In the 1960 Census, all nonrespondents on income (whether heads of families or other persons) were assigned the reported income of persons with similar demographic characteristics.

In 1940, all persons 14 years old and over were asked to report (*a*) the amount of money wages or salary received in 1939 and (*b*) whether income amounting to $50 or more received in 1939 was from sources other than money wages or salaries. Income distributions for 1959 and 1949 shown in the present report relate to total money income or to earnings; comparable statistics from the 1940 Census are not available.

Income tax data.—For several reasons, the income data shown in this report are not directly comparable with those which may be obtained from statistical summaries of income tax returns. Income, as defined for tax purposes, differs somewhat from the concept used by the Bureau of the Census. Moreover, the coverage of income tax statistics is less inclusive because of the exemptions of persons having small amounts of income. Furthermore, some income tax returns are filed as separate returns and others as joint returns; and, consequently, the income reporting unit is not consistently either a family or a person.

Bureau of Old-Age and Survivors Insurance earnings record data.—The earnings data shown here are not directly comparable with those which may be obtained from the earnings records of the Bureau of Old-Age and Survivors Insurance for several reasons. The coverage of the earnings record data for 1959 is less inclusive than that of the 1960 Census data because of the exclusion of the earnings of self-employed physicians, many civilian government employees, some employees of nonprofit organizations, workers covered by the Railroad Retirement Act, and persons who are not covered by the program because of insufficient earnings, including some self-employed persons, some farm workers, and domestic servants. Furthermore, earnings received from any one employer in excess of $4,800 in 1959 are not covered by the earnings record data. Finally, as the Bureau of the Census data are obtained by household interviews, they will differ from the Old-Age and Survivors Insurance earnings record data, which are based upon employers' reports and the Federal income tax returns of self-employed persons.

Office of Business Economics State income series.—The Office of Business Economics of the Department of Commerce publishes data on aggregate and per capita personal income received by the population in each State. If the aggregate total income were estimated from the income statistics shown in this report, it would be lower than that shown in the State income series for several reasons. The income statistics published by the Bureau of the Census are obtained from households, whereas the State income series published by the Office of Business Economics is estimated largely on the basis of data derived from business and governmental sources. Moreover, the definitions of income are different. The Office of Business Economics income series includes some items not included in the income statistics shown in this report, such as income in kind, the value of the services of banks and other financial intermediaries rendered to persons without the assessment of specific charges, and the income of persons who died or emigrated prior to the time of enumeration. On the other hand, income statistics in publications of the Bureau of the Census include contributions for support received from persons not residing in the same household, and employee contributions for social insurance.

COLLECTION AND PROCESSING OF DATA

The steps taken in the collection and processing of data in the 1960 Census differed in several important respects from those in the 1950 Census. In 1960, all the complete-count data and the sample data for about four-fifths of the population were obtained in the field by self-enumeration supplemented, if necessary, by a visit or telephone call by an enumerator, whereas in 1950, nearly all the data were collected by direct interview.

In 1960, enumerators recorded all the complete-count items and many of the sample items in the form of codes by marking appropriate circles on the schedule, but those in 1950 recorded most answers in terms of written entries on the population census schedule which were later coded by clerks. In both censuses, some of the sample items were edited by clerks and some by machine; however, machine procedures were used much more extensively for this operation in 1960 than in 1950. For complete-count data, the 1960 Census used machine editing almost exclusively as contrasted to the reliance in 1950 on both mechanical and clerical means.

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

COLLECTION OF DATA

Single- and Two-Stage Areas

In all parts of the United States, a few days before the census date (April 1), all households received by mail an Advance Census Report (ACR) containing the complete-count questions, that is, the questions which were to be answered for all persons. Household members were requested to fill these forms before the enumerator called.

In some areas, a "single stage" enumeration procedure was used, as discussed in the "General" section above. When the

enumerator in a "single stage" area made his visit, he collected all the complete-count and sample information at that time.[9] This information included answers to the questions on the ACR and to the additional (sample) questions which were to be answered for one-fourth of the households and one-fourth of the persons in group quarters.

In the other areas, a "two stage" enumeration procedure was used. When the "Stage I" enumerator called to collect the ACR, he left at every fourth household a Household Questionnaire containing the sample questions and asked that the questionnaire be filled and mailed promptly to the local census office. (Special procedures were used for sample persons in group quarters.) If the "Stage II" enumerator found that the questionnaire was incompletely filled or was not mailed, or if he detected answers that contained obvious inconsistencies, he was instructed to make calls by telephone or personal visit to obtain the missing information or to correct errors.

Advance Census Report, Household Questionnaire, and FOSDIC Forms

When an enumerator visited a household in a single-stage area, he obtained and recorded the complete-count information required for each person and for each living quarters on a special form designed for electronic processing on FOSDIC (Film Optical Sensing Device for Input to Computer). In doing so, he made use of the information which the household had entered on the ACR. Also, in each sample household, he completed the sample FOSDIC form. In addition, he transferred the complete-count information for the sample household to the sample FOSDIC form.

When a Stage I enumerator visited a household in a two-stage area, he followed the procedure described above for recording the complete-count information. Later, the Stage I enumerator transferred the complete-count information for each sample household to its sample FOSDIC form. When the sample household mailed its Household Questionnaire to the local census office, the Stage II enumerator transferred the sample information from the Household Questionnaire to the sample FOSDIC form. If the sample household had failed to mail a completed Household Questionnaire, the Stage II enumerator usually recorded the sample information directly on the sample FOSDIC form when he called for the information by telephone or by personal visit.

Thus, the enumerator's duty was to deliver completed FOSDIC schedules to the local census office. To do so, he made use of completed ACR's and Household Questionnaires where they were available and conducted direct interviews as needed.

Most of the questions on the ACR and Household Questionnaire were virtually identical with the corresponding ones on the FOSDIC forms. Those on the FOSDIC forms were somewhat briefer and more compact, contained more boxes for precoding, and omitted many of the brief instructions which are given on the self-enumeration forms to explain the meaning of certain questions. The differences between the two types of forms, however, are regarded as minor and probably did not contribute in any important way to a lack of comparability of the sample data; the less detailed wording on the FOSDIC forms was reinforced by the training on detailed instructions that was given to enumerators who used these forms. The respondent was probably not ordinarily aware, however, of the special cases discussed in the instructions unless he asked the enumerator for clarification of a particular point.

[9] States enumerated completely on a single-stage basis were: Alaska, Arkansas, Hawaii, Idaho, Mississippi, Montana, Nevada, New Mexico, North Dakota, South Dakota, and Wyoming. States enumerated partly, but not completely, on a single-stage basis were: Alabama, Arizona, California, Colorado, Florida, Georgia, Kansas, Kentucky, Louisiana, Maine, Michigan, Minnesota, Nebraska, Oklahoma, Oregon, Texas, Utah, Washington, and Wisconsin.

Field Review

In the 1960 Census, one of the more important innovations was a series of regularly scheduled field reviews of the enumerator's work by his crew leader or field reviewer. This operation was designed to assure at an early stage of the work that the enumerator was performing his duties properly and had corrected the errors he had made. Moreover, the completeness of coverage of the enumeration was checked in various ways, including, for the first time, an advance partial listing by one of the supervisors of addresses throughout the enumerator's district, and the checking of this list of addresses against that reported by the enumerator.

SAMPLE DESIGN

For persons in housing units at the time of the 1960 Census, the sampling unit was the housing unit and all its occupants; for persons in group quarters, it was the person. On the first visit to an address, the enumerator assigned a sample key letter (A, B, C, or D) to each housing unit sequentially in the order in which he first visited the units, whether or not he completed an interview. Each enumerator was given a random key letter to start his assignment, and the order of canvassing was indicated in advance, although these instructions allowed some latitude in the order of visiting addresses. Each housing unit assigned the key letter "A" was designated as a sample unit, and all persons enumerated in the unit were included in the sample. In every group quarters, the sample consisted of every fourth person in the order listed.

In 1950, the sample was designed to include every fifth person, regardless of his living arrangements. Thus, if a household head was in the sample, his wife, if any, and most or all of his children, if any, were not in the sample; likewise, if the wife or a child was in the sample, the head generally was not. This handicap to the analysis of household and family statistics was overcome by the use of the housing unit (hence, the household) as the basic sampling unit in 1960. But the effect of "clustering" persons by sampling whole households increased the sampling variability of the data for some items and is one of the factors that led to the enlargement of the sampling fraction from 20 percent to 25 percent. (See discussion of "Sampling variability" below.) Moreover, in the 1950 Census, the last few sample questions were to be asked only of every sixth sample person and may, therefore, have been regarded by the enumerator as less important, hence, could be given more casual treatment than the other sample questions. In the 1960 Census, if a person was in the sample, he was asked to answer all of the sample questions that were applicable.

Although the 1960 sampling procedure did not automatically insure an exact 25-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 25 percent was found to be small. Biases may have arisen, however, if the enumerator failed to follow his listing and sampling instructions exactly.

Table C–1 shows the percentage of persons and households, respectively, that were in the unweighted sample. For the United States, as a whole, the published figures are 24.7 and 24.5, respectively. The sample as finally processed, taking account of all replications, represented somewhat higher percentages, namely, 24.94 for persons and 24.82 for households. Available records indicate that the sample of persons as designated in the field was very slightly larger than this, since the number of persons canceled because of bias in size of household was only slightly larger than the 85,255 persons replicated to replace them. Estimates of the total number and percent of persons with specified characteristics based on sample data for 1960 were obtained by a ratio estimation procedure that is described in the section below on "Ratio estimation."

MANUAL EDITING AND CODING OF SCHEDULES

After the sample FOSDIC forms had been assembled and checked for completeness in the field, they were sent to a central processing office in Jeffersonville, Ind., for coding and microfilming. The FOSDIC forms for the complete-count data had not been coded manually (except where some special problems arose) before they were microfilmed.

The clerical editing and coding operation of the sample schedules provided an opportunity to correct obvious errors and to assign numerical codes to written entries before the data were processed by the electronic equipment. As a rule, editing or coding was performed by hand only when it could not be done effectively by machine. Thus, the manual operation was essentially limited to the minority of items where editing and coding required the reading of written entries rather than the reading of marked circles.

One of the coding problems that required the manual processing of every sample FOSDIC form was the coding of the item on relationship to the head of the household. The main purposes of this operation were to assign codes for relationship in detailed categories and to assign a family number to every member of a family group that was sharing the living quarters of the household head as a secondary family or a subfamily. A special group of coders assigned a code for type of institution or type of other group quarters to the first person in each of these types of living accommodations, and then the computer assigned the same code to all other persons in the group quarters.

Clerks also assigned codes for mother tongue of the foreign born, State of birth of the native population, country of origin of the foreign stock, residence five years prior to the census date, place of work, and income. The items related to geographic location created special problems because many respondents were unfamiliar with the names of counties and other political subdivisions required and, in many instances, provided incomplete or inaccurate information, or information not called for by the questions.

A special group of clerks coded the entries for occupation and industry. The clerks were provided with lists of names of large companies and their industrial classifications, as well as the *1960 Census of Population, Alphabetical Index of Occupations and Industries*. The class-of-worker entry was edited for consistency with occupation and industry.

The principles of quality control were applied in the manual editing and coding operation, just as they were used in the review of enumeration work and in certain other operations. Thus, in the first stage of the coding operation, one-fifth of the work of each occupation and industry coder, and one-tenth of the work of other coders, was verified by an examination of the work of the coders during the first few weeks of their assignment, that is, before they were eligible to be rated as "qualified." In the second stage, one-fortieth of the work of the occupation and industry coders, and one-eightieth of that of the other coders, was checked by two verifiers, each of whom did the work independently and did not see the work of the coder or of the other verifier. If the work done by a coder in the early phase was rejected on the basis of either or both of these checks, his work was verified completely. If the coder's work failed to qualify after a reasonable period of time he was dismissed from coding work.

After the coder qualified, control of his work was based on the results of the independent verification in which the majority rule among the coder and two verifiers was used to determine whether the coder had made an error. If the coder's error rate rose and remained consistently high, he was removed from the coding operation. In addition, provision was made for correction of all the work of occupation and industry coders who showed very high weekly error rates. Information on error rates will be given in later publications.

ELECTRONIC PROCESSING

The steps after the clerical processing of the sample data for 1960 were quite different from those performed in connection with the 1950 Census. In 1960, the procedure was as follows: (1) The schedules, which contained both population and housing information in the form of shaded code circles, were microfilmed; (2) the microfilm was read by FOSDIC, which converted the shaded circles to coded signals on magnetic tape; (3) this tape was read by an electronic computer, which edited, coded (that part of coding sometimes referred to as "recoding"), and tabulated the data; (4) a high-speed electronic printer printed the numbers and captions on sheets to which preprinted titles were added by hand; (5) the tables were reviewed; and (6) the high-speed printer output was used as copy for offset printing of the publication.

In 1950, the steps were as follows: (1) Clerks edited and coded both complete-count and sample entries; (2) clerks punched a card for each person containing the codes for population (but not housing) characteristics; (3) the punchcards were edited, the sample punchcards were weighted, and all cards were tabulated by conventional tabulators; (4) the tables were typed manually from the tabulation sheets; (5) the typed tables required proofreading and verification in addition to review; and (6) the tables were reproduced by offset printing for publication.

The extensive use of electronic equipment in the 1960 Census insured more uniform editing of the data than could have been accomplished by clerical work. On the other hand, the inability of the electronic equipment to read names and to perform some other operations that can be readily done by clerks introduced a measure of inflexibility at certain points in the processing operations. In the editing operation, substitutions were made for some of the nonresponses and inconsistencies, in order to simplify later tabulations and to make the published tables more usable. Moreover, the use of FOSDIC completely eliminated the cardpunching operation and thereby eliminated one important source of error. The types of error introduced by the use of FOSDIC were probably minor by comparison.

The enormous capacity of the electronic computer made it possible to do much more complex editing and coding than in earlier censuses and to insure consistency among a larger number of interrelated items. For example, the computer assigned a code to each person 14 years old and over for one of the five categories of employment status. In some instances, the determination of this code required the scanning of entries in as many as 9 items, where a full cross-classification of the 9 items would involve approximately 7,500 combinations of categories. At the same time, the greater capacity of the computer permitted the keeping of a detailed record of the extent of computer editing of census entries. (See section below on "Editing of unacceptable data.")

ACCURACY OF THE DATA

SOURCES OF ERROR

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

errors occur, and errors occur in the electronic processing operation for reasons discussed in the next section.

Careful efforts are made in every census to keep the errors in each step at an acceptably low level. Review of the enumerator's work, verification of manual coding and editing, checking of tabulated figures, and ratio estimation of sample data to control totals from the complete count (as discussed in a later section) reduce the effects of the errors in the census data. According to present plans, one or more reports evaluating the statistics of the 1960 Census will be published later. A report published by the Bureau of the Census and entitled *The Post-Enumeration Survey: 1950*, Technical Paper No. 4, presents evaluative material on the 1950 Census.

EDITING OF UNACCEPTABLE DATA

Assignments for Nonresponse or Inconsistency

Regardless of the operating procedure that is used, the desired end is to produce a set of statistical tables that describes the population as accurately and clearly as possible. In keeping with this objective, certain unacceptable entries on the 1960 Census questionnaires were edited.

As one of the first steps in editing, the computer scanned the configuration of marks from a given section of the sample FOSDIC schedule to determine whether it contained information for a person, or merely a spurious mark or two. If the section contained marks for at least two of the general characteristics—relationship, sex, color, age, marital status—and at least one of the entries was a relationship, sex, or color, the inference was made that the section contained entries for a person. Names were not used as a criterion of the presence of a person because the electronic computer was unable to distinguish between a name and any other entry in the name space. If the entries indicated that the line contained data for a person, the computer supplied information by assignment (as explained below) for more than half of the sample characteristics, where such information was missing, and for all of the missing complete-count characteristics. However, if sample information was entirely missing for more than a tolerable proportion of sample households in an area, special remedial action was taken, as explained in the section below on "Editing for other reasons."

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 on that item was inconsistent with other information for the person. (See section below on "Editing for other reasons" for examples of other situations requiring allocations.) As in earlier censuses, the general procedure for changing unacceptable entries was to assign an entry for a person that was consistent with entries for other persons with similar characteristics. Thus, a person who was reported as a 20-year-old son of the household head, but for whom marital status was not reported, was assigned a marital status from a marital status distribution for other sons in the same age group. Through the assignment of acceptable codes in place of blanks or unacceptable entries, it is believed that the usefulness of the data is enhanced.

In earlier censuses, the distributions from which assignments were made were derived from previous censuses or surveys. The use of the electronic computer improved upon this procedure by making feasible the use of distributions implicit in the 1960 data being tabulated. In addition, the superior flexibility of the computer permitted the use of a greater number of homogeneous subgroups and thus increased the probability that assignments would be accurate and consistent with entries on other items for the person.

The technique in the 1960 Census may be illustrated by the procedure used in the assignment of wage or salary income. The allocation of this item was carried out in the following steps:

1. The computer stored reported wage or salary income, by sex, age, color, major occupation group, and number of weeks worked in 1959, for persons 14 years old and over who worked in 1959.

2. Each stored wage or salary income was retained in the computer only until a succeeding person having the same characteristics and having wage or salary income reported was processed through the computer during the mechanical edit operation. Then, the reported wage or salary income of the succeeding person was stored in place of the one previously stored.

3. When the wage or salary income of a person 14 years old or over who worked in 1959 was not reported or the entry was unacceptable, the wage or salary income assigned to this person was that stored for the last person who otherwise had the same characteristics.

The above procedure insured that the distribution of wage or salary income assigned by the computer for persons of a given set of characteristics would correspond closely to the reported wage or salary income distribution of such persons in the current census.

In general, the procedure for making assignments of complete-count items shown in chapters C and D was more complex than that used for making assignments of complete-count items shown in chapter B. The assignment procedure used for chapters C and D often took account of additional information not available on the complete-count schedules about the sample person, and, when feasible, about other members of the household to determine the most appropriate value to assign.

For persons in large group quarters in which the enumerator had not been able to obtain the required sample information, a manual editing operation was used. For some of these places, entries for sample items were assigned by clerks from distributions of acceptable values for each item. These distributions of acceptable values were compiled through inspection of data for other group quarters of similar type for which adequate entries had been obtained.

Editing for Other Reasons

Editing was performed not only when there were nonresponses and inconsistencies but was also performed when the proportion of sample households in a "work unit" (group of enumeration districts) with little or no sample information exceeded certain tolerance limits. When this situation was discovered, households with inadequate sample information were canceled, and households of the same size in the same general area that did have the sample information were replicated to replace the ones that were canceled. As shown in table C–1 for the United States, this procedure involved 315,069 persons and 127,257 households. Also, adjustments were made in the work done by a small proportion of the enumerators, for biases in the size distribution of sample households as compared to that of all households. Thus, if there were too many large sample households, the proper number of large households was canceled and the same number of small households was substituted. For the United States as a whole, this adjustment involved 85,255 persons in 26,307 replicated households. The number of persons in the canceled households has not yet been firmly established, but it is estimated at about 110,000.

Editing was necessary, in addition, because of occasional failures in the microfilming process that caused an entire page of a schedule to be unreadable by FOSDIC. When this occurred, all information for at least one household was canceled. (Each sample FOSDIC page was designed to contain information for one housing unit and for one person or two persons.) If the unreadable page contained entry spaces for both housing and population information, two households may have been canceled because the computer was not always able to determine in this situation whether the page represented the beginning of a new household or the continuation of the previous household.

Specific tolerances were established for the number of computer allocations, substitutions, and cancellations that would be permitted for an enumeration district. If the number of corrections was beyond tolerance, the schedule books in which the errors occurred were clerically reviewed. If it was found that the errors resulted from damaged schedules, from improper microfilming, from faulty reading by FOSDIC of undamaged schedules, or from other types of machine failure, the schedules were manually repaired and reprocessed. Sometimes this repair work consisted simply of remicrofilming or of making darker shadings in the code circles. If a large number of allocations resulted from faulty entries on the schedules, the appropriateness of the computer allocations was considered and, in some instances, a manual allocation based on special sources of information was substituted.

As noted, inconsistencies in the reported data were resolved primarily by machine editing but occasionally by clerical editing. However, because of limitations of computer capacity and other resources, a number of complicated editing steps were not introduced when the effect upon the final data was considered to be small. Thus, for some characteristics, there may be a small number of cases in an unlikely age group. Illustrations include women under 18 years old with 5 or more children, members of the Armed Forces under 17, and parents under 30 years old of household heads or wives.

Very minor differences between tables result from imperfections in the electronic equipment. For example, in table 82 for the United States, Male, Employed is 43,466,951, whereas in table 86 for the United States, the same universe is reported as 43,466,946. No attempt has been made to reconcile these insignificant discrepancies.

Extent and Implications of Editing

In order to measure the effects of the various editing procedures, a number of appendix tables is presented. Appendix tables show the extent and implications of census editing. Tables B–1 and B–2 follow the chapter B tables, tables C–1, C–2, and C–3 follow the chapter C tables, and table D–1 follows the chapter D tables. Specifically, tables B–1 and B–2 show the extent of the allocations for nonresponse or for inconsistency. In these tables "substituted persons" and "persons with allocations" are stated as percentages of the population subject to the risk of such substitutions or allocations.

Persons substituted for "omissions due to noninterview" represent persons from previous occupied housing units substituted to take the place of the group of persons in a housing unit enumerated as occupied but for which the computer could find no persons. Persons substituted for "omissions due to mechanical failure" represent persons on preceding schedule pages who were substituted to account for persons on pages which could not be read by FOSDIC.

The count of "persons with one or more allocations" and the count of persons with allocations of various characteristics generally exclude "persons substituted." However, persons who served as substitutes for other persons, and who also had missing or inconsistent entries in one or more population characteristics, were included in the count of persons with one or more allocations for themselves and also for the person (or persons) for whom they were substituted. The sum of the percentages of persons having assignments in each population characteristic is greater than the number of persons with one or more allocations because some persons had allocations on more than one characteristic.

The size of the sample and the extent of replication are shown in appendix table C–1. The extent of the allocations for nonresponse or for inconsistency is shown in tables C–2 and C–3. In these tables, the percentages of persons for whom nonresponses were allocated are essentially exclusive of those persons with all sample characteristics not reported.

In table C–1, "persons in sample" and "households in sample" represent unweighted counts of distinct sample persons and distinct sample households, as determined after the computer had completed the various processing steps. These totals do *not* include the figures for "replicated because of bias in size of household" and "replicated because of absence of sample information" that appear on the following lines in table C–1. In tables C–2 and C–3, replicated persons were tallied as many times as they were replicated; and, therefore, the percent of "persons in sample" in table C–3 may be larger than the corresponding percent in table C–1. All data shown in tables C–2 and C–3 are weighted so as to be consistent with corresponding complete-count data, except "persons in sample" in table C–3, which represents the ratio of the unweighted sample count plus replications to the total population.

In table C–2, "persons with two or more sample characteristics reported" are persons with acceptable entries in two or more relevant sample characteristics (for example, entries in employment status are only relevant to persons 14 years old and over). The characteristics listed in table C–2 cover all the items that are published in chapter C and are classified into three major groups: Those subjects for which all nonresponses were allocated, those for which some but not all nonresponses were allocated, and those for which no nonresponses were allocated. For each subject, the universe applicable to the characteristic is indicated, along with the percent of persons in the relevant universe for whom nonresponses were allocated.

For each subject, the number of assignments shown in table C–2 for nonresponse or inconsistency includes only those made by the computer. This number excludes any assignments that were made in the field review of the census schedules, in the manual editing and coding operation, or in the manual repair of schedules for areas where the computer had made more than the tolerable number of assignments on the subject.

In table C–3, the percent of nonresponses shown in the column "nativity and nativity of parents" is overstated because, if both items were not reported, the person was incorrectly counted twice in the numerator.

The allocation rates for family income shown in tables C–2 and C–3 are somewhat overstated. The number of primary individuals for whom income items were allocated was inadvertently included in the numerator of the rates. The numerator should have included only families for which any member 14 years old and over had a nonresponse on income. This error was discovered too late for correction. For most areas, a fairly adequate correction may be obtained by assuming that the allocation rate for primary individuals is the same as that shown for persons 14 years old and over. This adjustment, though reducing the rates for families shown in tables C–2 and C–3, would nevertheless tend to result in an overstatement of the true rate because allocation rates for primary individuals are generally higher than those for all persons 14 years old and over. The application of this procedure reduces the family-income allocation rate for the United States from 11.7 to 10.6 percent.

Appendix table D–1 presents distributions of selected subjects, essentially as they appeared prior to allocation of nonresponses. These distributions may be compared with the corresponding statistics in the regular tables, category by category, in order to measure the net effects of allocation.

The figures shown are based on the final weighted sample figures, and the total number of persons in each distribution should agree with corresponding totals in the report. The data shown include persons in households which were replicated, and the characteristics tabulated for these persons are those of the members of the replicated household. In other words, the "not reported" categories in table D–1 include allocations but not replications (unless the person in the replicated household himself happened to have a nonresponse on the given characteristic).

For each subject, the number of allocations shown in table D–1 for "not reported" includes only those made by the computer; the exclusions are the same as those noted above for table C–2.

For items with all nonresponses allocated in 1960 but not in 1950—such as income and years of school completed—the 1960 percent distributions are based on the total number of persons in the given area or group; whereas the corresponding percent distributions for earlier censuses, as shown in this report, are based on the number reporting. If the nonresponses had been distributed for the earlier censuses in the more complicated ways that were used for the 1960 Census, the results obviously would have been a little different.

Certain types of response assignment (or allocation) are not included in the appendix tables. Among these, the following are the chief examples: Allocations of color were made for household members by substituting the color of the household head; allocations of marital status and sex were automatically made for persons identified as wives of household heads or as heads of households with wife present; and allocations were made at random for missing information on quarter of year of birth. Allocations of color made by substituting that of the household head were made only when the person was related to the head. The possibility of error in these cases was considered so low that the inclusion of such allocations in the tables was felt to be unjustified. All persons coded as wives were automatically classified as female and married, and all heads with wife present as male and married. These automatic classifications occurred regardless of the original entries in sex or marital status, and assignments in sex or marital status resulting from these allocations were not recorded. Also, clerical corrections, such as making darker shadings in the code circles, were not tallied and are not reflected in the counts of allocations.

Assignments for nonresponse or inconsistency, substitutions of persons and households, and other aspects of editing by the electronic computer will be discussed more fully as part of a more detailed report to be published at a later date under the title *Eighteenth Decennial Census: Procedural History.*

RATIO ESTIMATION

The statistics based on the sample of the 1960 Census returns are estimates that have been developed through the use of a ratio estimation procedure. This procedure was carried out for each of the following 44 groups of persons in each of the smallest areas for which sample data are published.[10]

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

For each of the 44 groups, the ratio of the complete count to the sample count of the population in the group was determined. Each specific sample person in the group was assigned an integral weight so that the sum of the weights would equal the complete count for the group. For example, if the ratio for a group was 4.2, one-fifth of the persons (selected at random) within the group were assigned a weight of 5, and the remaining four-fifths a weight of 4. The use of such a combination of integral weights rather than a single fractional weight was adopted to avoid the complications involved in rounding in the final tables. In order to increase the reliability, where there were fewer than 50 persons in the complete count in a group, or where the resulting weight was over 16, groups were combined in a specific order to satisfy both of these two conditions.

These ratio estimates reduce the component of sampling error arising from the variation in the size of household and achieve some of the gains of stratification in the selection of the sample, with the strata being the groups for which separate ratio estimates are computed. The net effect is a reduction in the sampling error and bias of most statistics below what would be obtained by weighting the results of the 25-percent sample by a uniform factor of four. 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 generally consistent with the complete count with respect to the total population and for the subdivisions used as groups in the estimation procedure. A more complete discussion of the technical aspects of these ratio estimates will be presented in another report.

SAMPLING VARIABILITY

The figures from the 25-percent sample tabulations are subject to sampling variability, which can be estimated roughly from the standard errors shown in tables B and C below. Somewhat more precise estimates of sampling error may be obtained by using the factors shown in table D in conjunction with table C for percentages and table B for absolute numbers. These tables[11] do not reflect the effect of response variance, processing variance, or bias arising in the collection, processing, and estimation steps. Estimates of the magnitude of some of these factors in the total error are being evaluated and will be published at a later date. The chances are about 2 out of 3 that the difference due to sampling variability between an estimate and the figure that would have been obtained from a complete count of the population is less than the standard error. The chances are about 19 out of 20 that the difference is less than twice the standard error and about 99 out of 100 that it is less than 2½ times the standard error. The amount by which the estimated standard error must be multiplied to obtain other odds deemed more appropriate can be found in most statistical textbooks.

Table B shows rough standard errors of estimated numbers. 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 C shows rough standard errors of data in the form of percentages. Linear interpolation in tables B and C will provide approximate results that are satisfactory for most purposes. The standard errors estimated from tables B and C are not directly applicable

[10] Estimates of characteristics from the sample for a given area are produced using the formula:

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

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

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

TABLE B.—ROUGH APPROXIMATION TO STANDARD ERROR OF ESTIMATED NUMBER

[Range of 2 chances out of 3]

Estimated number [1]	Standard error	Estimated number [1]	Standard error
50	15	5,000	110
100	20	10,000	160
250	30	15,000	190
500	40	25,000	250
1,000	60	50,000	350
2,500	80		

[1] For estimated numbers larger than 50,000, the *relative* errors are somewhat smaller than for 50,000.

TABLE C.—ROUGH APPROXIMATION TO STANDARD ERROR OF ESTIMATED PERCENTAGE

[Range of 2 chances out of 3]

Estimated percentage	Base of percentage					
	500	1,000	2,500	10,000	25,000	100,000
2 or 98	1.3	0.9	0.5	0.3	0.1	0.1
5 or 95	2.0	1.4	0.9	0.4	0.2	0.1
10 or 90	2.8	2.0	1.2	0.6	0.3	0.2
25 or 75	3.8	2.7	1.5	0.7	0.4	0.2
50	4.4	3.1	1.6	0.8	0.5	0.3

to differences between two sample estimates. These tables are to be applied in the three following situations as indicated:

1. For a difference between the sample figure and one based on a complete count (e.g., arising from comparisons between 1960 sample statistics and complete-count statistics for 1950 or 1940), the standard error is identical with the standard error of the 1960 estimate alone.

2. For a difference between two sample figures (that is, one from 1960 and the other from 1950, or both from the same census year), the standard error is approximately the square root of the sum of the squares of the standard error of each estimate considered separately. This formula will represent the actual standard error quite accurately for the difference between estimates of the same characteristics 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 1960 sample figure is derived directly from table B or C. The standard error of a 20-percent 1950 sample figure may be obtained from the relevant 1950 Census report, or an approximate value may be obtained by multiplying by 1.2 the appropriate value in table B or C.

3. For a difference between two sample estimates, one of which represents a subclass of the other, table B or C (whichever is appropriate) can be used directly, with the difference considered as the sample estimate.

The sampling variability of the medians presented in certain tables (median age, median years of school completed, and median income) 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 that 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 reporting (designated $\frac{N}{2}$) on the characteristic on which the median is based. By the methods outlined in other parts of this section, compute the standard error of $\frac{N}{2}$. Subtract this standard error from $\frac{N}{2}$. Cumulate the frequencies (in the table on which the median is based) up to the interval containing the difference between $\frac{N}{2}$ and its standard error, and by linear interpolation obtain a value corresponding to this number. In a corresponding manner, add the standard error to $\frac{N}{2}$, cumulate the frequencies in the table, and obtain a value corresponding to the sum of $\frac{N}{2}$ 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 households as the sampling unit), and the use of ratio estimates. Formulas for computing the variability of a mean in simple random sampling can be found in textbooks on statistics. Although the estimated distribution on which a given mean is based may not be published in the detailed tables which follow, an approximation to the variability of the mean may be obtained by using a comparable distribution for a larger area or for a similar population group. A rough estimate of the sampling variability of means in this report may then be obtained by multiplying the figure thus derived by the factor corresponding to it in table D.

For most characteristics, the use of the household as a sampling unit increases the standard error above what would be expected for a simple random sample of persons taken with the same sampling fraction. In particular, sample items which tend to have the same value for all members of a household (e.g., race or residence in 1955) may have a considerably higher variance than if a sample of persons had been used. However, for many characteristics, the standard error is reduced below what would be expected for a simple random sample of persons because of geographic stratification in the selection of the sample and the use of ratio estimation.

Table E shows standard errors for estimated numbers of persons depending on the population of the place (city, county, State), unlike table B, and the magnitude of the estimate but, similar to table B, ignoring some aspects of the sample design and the estimation process. Table D provides a factor by which the standard errors shown in table E should be multiplied to adjust for the combined effect of the sample design, the estimation procedure, and the population of the area over which the estimate is calculated.

To estimate a somewhat more precise standard error for a given characteristic, locate in table D the factor applying to the characteristic. Where data are shown as cross-classifications of two characteristics, locate each characteristic in table D. The factor to be used for any cross-classification will usually lie between the values of the factors. When a given characteristic is cross-classified in extensive detail (i.e., by single years of age), the factor to be used is the smaller one shown in table D. Where a characteristic is cross-classified in broad groups (or used in broad groups), the factor to be used in table D should be closer to the larger one. Multiply the standard error given for the size of estimate and the population of the area as shown in table E by this factor from table D. The result of this multiplication is the approximate standard error. Similarly, to obtain a somewhat more precise estimate of the standard error of a percentage, multiply the standard error as shown in table C by the factor from table D. For most estimates, linear interpolation in tables C and E will provide reasonably accurate results.

TABLE D.—FACTOR TO BE APPLIED TO STANDARD ERRORS

Characteristic	Factor
Age	0.8
Nativity and parentage	1.4
Color or race	1.8
Farm-nonfarm residence	1.8
Place of birth	1.2
Country of origin	1.4
Mother tongue	1.4
Residence in 1955	1.8
Year moved into present house	1.8
School enrollment	0.8
Level and type of school in which enrolled	0.8
Years of school completed	1.0
Veteran status of civilian males	1.0
Marital status	1.0
Presence of spouse	1.0
Married couples	1.0
Whether married more than once	1.0
Household relationship and unrelated individuals	1.0
Families and subfamilies	1.0
Children ever born	1.0
Employment status	1.0
Labor force status	1.0
Hours worked	1.0
Weeks worked in 1959	1.0
Year last worked	1.0
Occupation	1.0
Industry	1.0
Place of work	1.0
Means of transportation to work	1.0
Class of worker	1.0
Earnings in 1959	1.0
Income in 1959	1.0

Illustration: Let us assume that, for a city with a population of 250,000, table 101 shows that there are an estimated 1,500 males 6 years old who were enrolled in the first year of elementary school. Table D shows that, for data on school enrollment, the appropriate standard error in table E should be multiplied by a factor of 0.8. Table E shows that the standard error for an estimate of 1,500 in areas of 250,000 inhabitants is about 60. The factor of 0.8 times 60 is 48, which means that the chances are approximately 2 out of 3 that the results of a complete census will not differ by more than 48 from this estimated 1,500. It also follows that there is only about 1 chance in 100 that a complete census result would differ by as much as 120, that is, by about 2½ times the number estimated from tables D and E.

TABLE E.—STANDARD ERROR OF ESTIMATED NUMBER

[For multiplying factors see table D and text; range of 2 chances out of 3]

Estimated number [1]	Population of area [2]							
	1,000	10,000	25,000	100,000	250,000	1,000,000	5,000,000	15,000,000
50	15	15	15	15	15	15	15	15
100	20	20	20	20	20	20	20	20
250	25	30	30	30	30	30	30	30
500	25	40	40	40	40	40	40	40
1,000	0	50	50	50	50	50	50	50
2,500	--------	70	70	80	80	80	80	80
5,000	--------	80	100	110	110	110	110	110
10,000	--------	0	120	150	150	150	160	160
15,000	--------	--------	120	180	190	190	190	190
25,000	--------	--------	0	210	230	240	250	250
50,000	--------	--------	--------	250	310	340	350	350

[1] For estimated numbers larger than 50,000, the *relative* errors are somewhat smaller than for 50,000.

[2] An area is the smallest complete geographic area to which the estimate under consideration pertains. Thus, the area may be the State, city, county, standard metropolitan statistical area, urbanized area, or the urban or rural portion of the State or county. The rural-farm or rural-nonfarm population of the State or county, the nonwhite population, etc., do not represent complete areas.