1990 Census of Population and Housing HUD Block Grant Program (STP 19): Puerto Rico Technical Documentation

D1-D90-ST03-14-TECHP

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Additionally, Census Bureau organization, telephone numbers, and staff cited in this technical documentation are not current. For updated information, see our Telephone Contacts site at <http://www.census.gov/contacts/www/contacts.html> or Staff Search at <http://www.census.gov/cgi-bin/main/email.cgi>.

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1990 Census of Population

HUD 1990 Block Grant Program Special Tabulation (STP 19) Block-Group Level File *(Puerto Rico)*

ACKNOWLEDGMENTS

The Decennial Planning Division, **Susan M. Miskura,** Chief, coordinated and directed all census operations. **Patricia A. Berman,** Assistant Division Chief for Content and Data Products, and **Lourdes N. Flaim,** Chief, Puerto Rico and Outlying Areas Branch, developed, directed, and coordinated the 1990 Census of Puerto Rico. Other assistant division chiefs were **Robert R. Bair, Rachel F. Brown, James L. Dinwiddie, Allan A. Stephenson,** and **Edwin B. Wagner, Jr.** The following other branch chiefs made significant contributions: **Cheryl R. Landman, Adolfo L. Paez, A. Edward Pike,** and **William A. Starr.** Other important contributors were **Julia Buckley-Ess, Ada Costa-Cash, Idabelle B. Hovland, Ivonne Pabón-Marrero, Abraham A. Piceno,** and **Gloria J. Porter.**

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The Field Division, **Stanley D. Matchett,** Chief, directed the census data collection and associated field operations. **Richard L. Bitzer, Richard F. Blass, Karl K. Kindel,** and **John W. Marshall** were assistant division chiefs. **Sheila H. Grimm** was the director of the New York Regional Office with responsibility for the Census of Puerto Rico.

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1990 Census of Population

HUD 1990 Block Grant Program Special Tabulation (STP 19) Block-Group Level File *(Puerto Rico)*

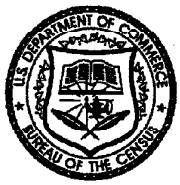
TECHNICAL DOCUMENTATION

Issued October 1993

U.S. Department of Commerce
Ronald H. Brown, Secretary

Economics and Statistics Administration
Paul A. London, Acting Under Secretary for Economic Affairs

BUREAU OF THE CENSUS
Harry A. Scarr, Acting Director



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For additional information concerning the file, contact Data User Services Division, Customer Services Branch, Bureau of the Census, Washington, DC 20233. Telephone: 301-763-4100.

For additional information concerning the technical documentation, contact Data User Services Division, Data Access and Use Staff, Bureau of the Census, Washington, DC 20233. Telephone: 301-763-2074.

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ABSTRACT

The user should note that there are limitations to many of these data. Please refer to the technical documentation for a further explanation on the limitations of the data.

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CITATION

Census of Population, 1990: HUD 1990 Block Grant Program Special Tabulation 19 (STP 19), Block-Group Level File (Puerto Rico) [machine-readable data files]/ prepared by the Bureau of the Census for the Department of Housing and Urban Development. —Washington; The Bureau [producer and distributor], 1993.

TYPE OF FILE

Summary statistics.

UNIVERSE DESCRIPTION

All persons and housing units in Puerto Rico.

SUBJECT MATTER DESCRIPTION

STP 19 for Puerto Rico contains sample data weighted to represent the total population. This file was originally requested by the Department of Housing and Urban Development and is now available for public sale. It contains unweighted sample counts for total persons, families, and households. College enrollment data cross tabulated by household size, income, and poverty status comprise 4 of the 14 data tables.

Many of the data items listed below are cross tabulated. Please see the List of Tables chapter for a complete listing.

- Age of householder or spouse
- College enrollment
- Employment status
- Family income in 1989
- Family size
- Household income in 1989
- Household size
- Household type
- Poverty status in 1989

GEOGRAPHIC COVERAGE

STP 19 for Puerto Rico is released as one file. This abstract lists only the most frequently accessed geographic levels. The Summary Level Sequence Chart chapter outlines the hierarchical and inventory summaries in their entirety. The hierarchy is shown below:

State[1]
  County[2]
    County Subdivision[3]
      Place (or place part)
        Census Tract/Block Numbering Area
          Block Group

Inventory (complete) summaries are provided for the following geographic areas:

Census Tract/Block Numbering Area
Block Group
County[2]
Subbarrio[4]
Place
Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area
Urbanized area

RELATED PRINTED REPORTS

Listed below are the 1990 census printed reports for Puerto Rico containing sample data. These reports will be available from Superintendents of Documents, U.S. Government Printing Office, Washington, DC 20402. An order form follows this abstract.

1990 CPH-3-53, *Population and Housing Characteristics for Census Tracts and Block Numbering Areas.* Shows data for most of the population and housing subjects included in the 1990 census. Some tables will be based on the 100-percent tabulations, others on the sample tabulations. One report will be published for each metropolitan statistical area (MSA) and primary metropolitan statistical area (PMSA), and one for nonmetropolitan balance of Puerto Rico. Statistics will be presented in a geographic hierarchy of municipio–place

[1]Puerto Rico
[2]Municipio in Puerto Rico
[3]Barrio-pueblo or barrio in Puerto Rico
[4]In Puerto Rico, some subdivisions(barrios-pueblo and barrios) are divided into sub-minor civil divisions (subbarrios)

of 10,000 or more inhabitants–census tract/block numbering area (BNA). Stock no. 003-024-07276-9. Release awaiting price.

1990 CPH-5-53, *Summary Social, and Economic, and Housing Characteristics.* Provides sample population and housing data for Puerto Rico; its municipios; barrios-pueblo and barrios, subbarrios, and places. Stock no. 003-024-08155-5. Price: $41.

1990 CP-2-53, *Social and Economic Characteristics.* Focuses on the population subjects collected on a sample basis in 1990. Data will be shown for Puerto Rico; its municipios; MA's; UA's; barrios-pueblo and barrios, subbarrios, and places of 2,500 or more inhabitants; and summary geographic areas. Scheduled for release in 1993.

1990 CH-2-53, *Detailed Housing Characteristics.* Focuses on the housing subjects collected on a sample basis in 1990. Data will be shown for Puerto Rico; its municipios; MA's; UA's; barrios-pueblo and barrios, subbarrios, and places of 2,500 or more inhabitants; and summary geographic areas. Scheduled for release in 1993.

RELATED REFERENCE MATERIALS

1990 Census of Population and Housing Tabulation and Publication Program for Puerto Rico. This booklet provides descriptions of the data products available from the 1990 census. Available without charge from Customer Services, Data User Services Division, Bureau of the Census, Washington, DC 20233. Phone: 301-763-4100. FAX: 301-763-4794.

Census '90 Basics. This booklet provides a general overview of the census activity and detailed information on census content, geographic areas, and products. Available without charge from Customer Services (see above).

Census ABC's–Applications in Business and Community. This booklet highlights key information about the 1990 census and illustrates a variety of ways the data can be used. Available without charge from Customer Services (see above).

1990 CPH-R-1A, *1990 Census of Population and Housing Guide,* Part A. Text. This provides detailed information about all aspects of the census. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. GPO S/N 003-024-08574-7. Price: $11.

1990 CPH-R-1B, *1990 Census of Population and Housing Guide,* Part B, Glossary. This is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. GPO S/N 003-024-08679-4. Price: $5.50. Part C, Index, provides an index of Summary Tape Files 1-4 and will be available later.

RELATED MACHINE-READABLE PRODUCTS

Census of Population and Housing, 1990: Summary Tape File 3 (Puerto Rico) [machine-readable data files]/ prepared by the Bureau of the Census. —Washington: The Bureau [producer and distributor], 1993.

TECHNICAL DESCRIPTION

STF 1B Puerto Rico data files have a record size of 5,907 characters. The first 300 characters contain geographic information.

FILE AVAILABILITY

The file is available as one file. A copy of the technical documentation accompanies each order. Pricing information is available from Customer Services, Data User Services Division, Bureau of the Census, Washington, DC 20233. Phone 301-763-4100. FAX: 301-763-4794. When ordering, please use the order form at the end of this chapter.

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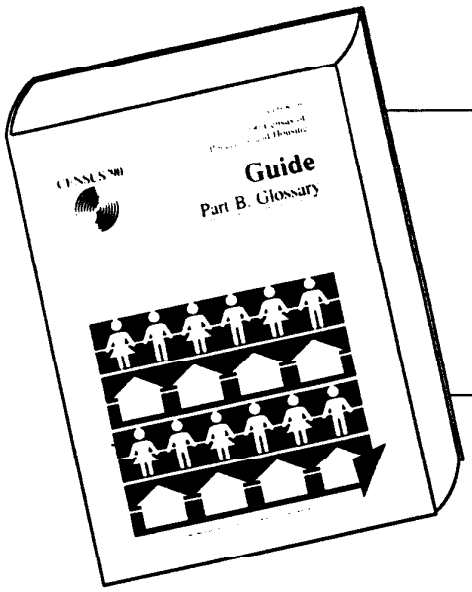

Just Published!

PART B, GLOSSARY
1990 Census of Population and Housing Guide

Part B, Glossary (1990 CPH-R-1B) is the second part of the 3-part *1990 Census of Population and Housing Guide.* It defines terms used in the census. • **Geographic** definitions cover specific characteristics of an entity, such as type of geographic code and how boundaries are determined. • **Population** and **housing** definitions identify the related item numbers on the 1990 census questionnaire (included as an appendix), define the concepts involved, and note the items comparability to previous censuses. • **Technical** terms associated with the collection, processing, and tabulation of 1990 census data also are included, along with terms used in working with data files on electronic media. (The geographic, population, and housing definitions are drawn from appendixes to 1990 census reports and technical documentation.)

Previously Published—Part A, TEXT

If you are using 1990 census results, you will find the *Guide,* Part A, Text an indispensable reference. It offers the information you need on such subjects as:

- **Data products**
- **Geographic terms and products**
- **Where to find assistance**
- **Population and housing concepts**
- **Census procedures**

Still to come is an index to the 1990 census Summary Tape Files, which will be Part C.

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HOW TO USE THIS FILE

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Using the File ---------- 2–2

INTRODUCTION

This chapter serves as a guide for data users to both the tape and the technical documentation. Novice users trying to understand how to use the documentation and the file should read this chapter first.

Documentation Chapters

The Abstract chapter in this documentation provides a quick overview of the file, including the formal title, geographic coverage, subject coverage, and file availability. Also shown are citations for related reference materials and printed reports. Their titles and geography are included in this section, along with purchasing information.

The Subject Locator is an aid to finding which tables provide the information needed. The List of Tables (Matrices) and the Table (Matrix) Outlines provide two types of presentations for the tables available in the file. The List of Tables (Matrices) has the table titles and universes.

The Table (Matrix) Outlines offer a detailed presentation of the tables. When reviewing the tables, remember that a colon (:) following an entry indicates the entry is a heading, not a data cell.

User Notes

Information about file or documentation changes sometimes becomes available after the documentation has been printed. User notes inform the user community about these changes. These are issued in a numbered series. If there are technical documentation changes, revised pages usually accompany them. The revised pages should be inserted in their proper location, but the user note cover sheet should be filed in the User Notes chapter. Technical notes, which contain file errata, are also issued by the Census Bureau. We suggest filing these following appendix H.

Data Dictionary

The data dictionary describes the file and provides character locations for each variable and each table. It has two elements, the identification section and the table (matrix) section.

In the identification section, the components include the field name; the data dictionary reference name, a short mnemonic for use with software packages; field size; starting position; and data type (alphabetic, numeric, or alphanumeric).

The identification section of the data dictionary is identical for all summary tape files. It provides a list of the geographic codes or refers the user to the appropriate source. Review the footnotes carefully; they provide explanations for various terms. These footnotes are listed at the end of the identification section of the data dictionary.

The table (matrix) section provides information on the table (matrix) number; table (matrix) description; number of implied decimals in each cell (if not 0); starting position within the record, within the segment, and for all cells within the first-level variable; and cell coordinates.

There also is a machine-readable data dictionary file on the data tape. This dictionary is designed to be converted for use with various software packages.

Appendixes

Detailed information on geographic areas is in appendix A followed by subject-matter definitions in appendix B. Appendix C provides detailed statistical information about the data while appendix D outlines the data collection and processing procedures. A facsimile of the 1990 census long-form questionnaire is in appendix E.

Appendix F furnishes detailed information on all the data products of the 1990 census for Puerto Rico, as well as suggested sources of information and assistance. Map information is included in appendix G. The record layout for the machine-readable data dictionary file that accompanies each tape order is in appendix H.

Count Corrections

The Census Bureau issues population count corrections on an occasional basis. Count corrections for geography at the place level and above are available from Customer Services, Data User Services Division, Bureau of the Census, Washington, DC 20233. Count corrections for geography at the census tract/BNA level or below are available from Population Division, Bureau of the Census, Washington, DC 20233. When requesting these corrections, please include the desired census tract/BNA, block group, or block numbers.

USING THE FILE

Internal File Labels

System Labels—Tape orders which specify labeled tapes will have a standard American National Standards Institute (ANSI) label. The system label consists of 17 characters, but only the first 12 are active. The remaining five characters will be 'X' filled. The 1990 STP 19 file has a Data Set Name (DSN) of SP019Xss.Fnnxxxxx where ss is the United States Postal Service (USPS) State abbreviation for Puerto Rico, and nn is a two-digit number with leading zeroes identifying the tape volume sequence. (The "X", "F", and "x" in the DSN remain constant.)

User Labels—Each user tape will have six user header labels and six user trailer labels. These labels combine information from the system label and the identification portion of the first and last record. These labels enable the user to quickly identify the beginning and ending records on each tape.

User Header Labels—The user header labels are designated UHL1 through UHL6. UHL1 and UHL2 repeat information from the system label in HDR1 and HDR2. UHL3 and UHL4 contain information from the identification portion of the first record on the tape. UHL5 through UHL6 contain a statement regarding the data.

User Trailer Labels—The user trailer labels are designated UTL1 through UTL6. UTL1 and UTL2 contain information from the system trailer label. UTL3 and subsequent user trailer labels contain identification information from the last record on the tape. The unused portion of UTL6 is blank filled.

State-Specific File Information

State-specific file information, such as record counts, is not provided in the technical documentation. However, each tape order is accompanied by a tape creation sheet. This sheet provides the file name, file label (HDR1), the third user header label (UHL3), record size, block size, and record count. The third user header label for each reel identifies the geography for the first record on the reel. For example, the UHL3 at the beginning of each reel of a three-reel file for a State provides the geography for the first record. If the geography needed is on reel three, only reel three needs to be processed.

The tape creation sheet received with the tape should be filed in the technical documentation notebook or with other tape information maintained by the user.

Record Identification

Each record in a file is uniquely identified by a combination of geographic (for example, Puerto Rico, municipio, and barrio-pueblo), summary level, and geographic component codes. For example, if you have the Puerto Rico STP 19 file and want to look at the summary record for Ponce Municipio, three identification fields must be checked: the summary level code for municipio records 050), the total record for geographic components (00), and the municipio code for Ponce Municipio (113). If all three fields are not checked, multiple records will be found. See the Summary Level Sequence Chart and Geographic Area Component Codes section below for information on identifying summary level and geographic component codes.

Summary Level Sequence Chart and Geographic Area Component Codes

The Summary Level Sequence Chart chapter and the geographic area component codes provide important information for using the 1990 census summary tape files.

The Summary Level Sequence Chart chapter identifies the geographic levels for which data are provided. It is easy to determine this if you remember that the last geographic area type listed in the sequence identifies the geography of the summary level; the prior codes simply define the hierarchy. For example, in summary level 319, the hierarchy listed is State—Metropolitan Statistical Area (MSA)/Consolidated Metropolitan Statistical Area (CMSA). The record actually contains data for an MSA/CMSA within Puerto Rico.

When reading the Summary Level Sequence Chart chapter, it is important to recognize that dashes (—) separate the individual hierarchies while slashes (/) separate different types of geography within the same hierarchy.

After identifying the summary level code, turn to chart 1 at the end of this chapter to determine the geographic area codes and area characteristics provided on the tape for this summary level. Remember that an asterisk (*) indicates a code in that field. The code may be one of the standard codes described below.

The Summary Level Sequence Chart chapter also provides geographic component code information. This code identifies the various geographic components for which the record is repeated within the summary level. These component codes are provided in the data dictionary beginning in position 14. For example, the Summary Level Sequence Chart for STP 19 indicates that the summary level for MSA/CMSA records (319) has geographic component codes 00, 23, and 24. By turning to the geographic component variable in the data dictionary, you can determine that the tables for summary level 319 (MSA/CMSA) are available for total geography (geographic component=00); in MSA/CMSA—in MSA/PMSA central city (geographic component=23), and in MSA/CMSA–not in MSA/PMSA central city (geographic component=24).

In short, always check the geographic codes, the summary level (beginning in position 11 of the data dictionary), and the geographic component code

(beginning in position 14 of the data dictionary) for complete identification of an STP 19 Puerto Rico record.

Special Area Codes

Special area codes appear in the geographic area codes portion of the data dictionary (positions 142-171). The codes represented may vary across decennial files. In the STP 19 Puerto Rico file, special area code (8) and special area code (9) are used. Special area code (8) is used in summary level 067 only; it contains the Census Bureau's subbarrio code. The nine codes for special area code (9) are described below.

Special area code (8)—Census Bureau subbarrio code

Special area code (9)—Land/water area

1	Significant land, significant (0.0005 or more square kilometers) water
2	Significant land, minimal (less than 0.0005 square kilometer) water
3	Significant land, zero (0) water
4	Minimal land, significant water
5	Minimal land, minimal water
6	Minimal land, zero water
7	Zero land, significant water
8	Zero land, minimal water
9	Zero land, zero water

Standard Codes

In the identification section, there are standard codes, undefined in the data dictionary, that have identical meaning regardless of the field. The codes are the same size as the field; that is, a three-character field will have three symbols. These standard codes are listed below.

!	Not available—The code would be shown except it had not been determined when the files were prepared (for example, metropolitan area code on a county summary level (050) on STF 1A).
9	Not in—This indicates a "remainder of" an area, such as a place code in the portion of a county subdivision not in a place, or the summary level is not part of any area to which the code field applies, such as a summary level which is not in an Alaska Native Regional Corporation.
Blank	Not applicable—This indicates that the code is not applicable to the summary level.

Where these codes are specifically defined in the data dictionary, the defined code should be used. For example, in the division code description on the data dictionary (position 89), the code for the Pacific Division is indicated as "9." This "9" should be interpreted as the division code, not as "not in," the standard code for "9."

Chart 1. **STP 19 - Puerto Rico File Identification by Summary Level**[1]

Field name	Summary level 040	050	060	067	070	080	090	140	150	155	160
Record Codes											
File Identification	*	*	*	*	*	*	*	*	*	*	*
State/US-Abbreviation (Puerto Rico only)	*	*	*	*	*	*	*	*	*	*	*
Summary Level	*	*	*	*	*	*	*	*	*	*	*
Geographic Component	*	*	*	*	*	*	*	*	*	*	*
Characteristic Iteration	*	*	*	*	*	*	*	*	*	*	*
Logical Record Number	*	*	*	*	*	*	*	*	*	*	*
Logical Record Part Number	*	*	*	*	*	*	*	*	*	*	*
Total Number of Parts In Record	*	*	*	*	*	*	*	*	*	*	*
Geographic Area Codes											
Alaska Native Regional Corporation							*				
American Indian/Alaska Native Area (Census)							*				
American Indian/Alaska Native Area (FIPS)							*				
American Indian/Alaska Native Area Class Code							*				
American Indian Reservation Trust Land Indicator							*				
Block											
Block Group							*		*		
Census Tract/Block Numbering Area						*	*	*	*		
Congressional District							*				
Consolidated City (Census)					*	*	*			*	*
Consolidated City (FIPS)					*	*	*			*	*
Consolidated City Class Code					*	*	*			*	*
Consolidated City Size Code					*	*	*			*	*
Consolidated Metropolitan Statistical Area		*	*	*	*	*	*	*	*		
County (Municipio)		*	*	*	*	*	*	*	*	*	
County Size Code		*	*	*	*	*	*	*	*	*	
County Subdivision (Barrio-pueblo or Barrio) (Census)			*	*	*	*	*				
County Subdivision (FIPS)			*	*	*	*	*				
County Subdivision Class Code			*	*	*	*	*				
County Subdivision Size Code			*	*	*	*	*				
Division	*	*	*	*	*	*	*	*	*	*	*
Extended City Indicator					*	*	*			*	*
Internal Use Code											
Metropolitan Statistical Area/Consolidated Metropolitan Area		*	*	*	*	*	*	*	*		

[1]See the Summary Level Sequence Chart chapter for identification of the summary level record numbers.

Summary level 319	Summary level 321	Summary level 329	Summary level 331	Summary level 340	Summary level 341	Summary level 420	Summary level 430	Summary level 440	Summary level 450	Summary level 460	Field name
											Record Codes
*	*	*	*	*	*	*	*	*	*	*	File Identification
*	*	*	*	*	*	*	*	*	*	*	State/US-Abbreviation (Puerto Rico only)
*	*	*	*	*	*	*	*	*	*	*	Summary Level
*	*	*	*	*	*	*	*	*	*	*	Geographic Component
*	*	*	*	*	*	*	*	*	*	*	Characteristic Iteration
*	*	*	*	*	*	*	*	*	*	*	Logical Record Number
*	*	*	*	*	*	*	*	*	*	*	Logical Record Part Number
*	*	*	*	*	*	*	*	*	*	*	Total Number of Parts In Record
											Geographic Area Codes
											Alaska Native Regional Corporation
											American Indian/Alaska Native Area (Census)
											American Indian/Alaska Native Area (FIPS)
											American Indian/Alaska Native Area Class Code
											American Indian Reservation Trust Land Indicator
											Block
											Block Group
											Census Tract/Block Numbering Area
											Congressional District
				*	*				*	*	Consolidated City (Census)
				*	*				*	*	Consolidated City (FIPS)
				*	*				*	*	Consolidated City Class Code
				*	*				*	*	Consolidated City Size Code
*	*		*		*		*	*	*		Consolidated Metropolitan Statistical Area
		*	*				*	*	*		County (Municipio)
		*	*				*	*	*		County Size Code
								*	*		County Subdivision (Barrio-pueblo or Barrio) (Census)
								*	*		County Subdivision (FIPS)
								*	*		County Subdivision Class Code
								*	*		County Subdivision Size Code
*	*	*	*	*	*	*	*	*	*	*	Division
				*	*				*	*	Extended City Indicator
											Internal Use Code
*	*	*	*	*	*		*	*	*		Metropolitan Statistical Area/Consolidated Metropolitan Area

Chart 1. **STP 19 - Puerto Rico File Identification by Summary Level[1]**–Con.

Field name	Summary level 040	050	060	067	070	080	090	140	150	155	160
Geographic Area Codes–Con.											
MSA/CMSA Size Code		*	*	*	*	*	*	*	*		
Place (Census)					*	*	*			*	*
Place (FIPS)					*	*	*			*	*
Place Class Code					*	*	*			*	*
Place Description Code					*	*	*			*	*
Place Size Code					*	*	*			*	*
Primary Metropolitan Statistical Area		*	*	*	*	*	*	*	*		
Region	*	*	*	*	*	*	*	*	*	*	*
State (Census)[2]	*	*	*	*	*	*	*	*	*	*	*
State (FIPS)	*	*	*	*	*	*	*	*	*	*	*
Urban/Rural							*				
Urbanized Area							*				
Urbanized Area Size Code							*				
Special Area Code (1)											
Special Area Code (2)											
Special Area Code (3)											
Special Area Code (4)											
Special Area Code (5)											
Special Area Code (6)											
Special Area Code (7)											
Special Area Code (8)				*							
Special Area Code (9)	*	*	*	*	*	*	*	*	*	*	*
Special Area Code (10)											
Area Characteristics											
Area (Land)	*	*	*	*	*	*	*	*	*	*	*
Area (Water)	*	*	*	*	*	*	*	*	*	*	*
Area Name/PSAD Term/Part Indicator	*	*	*	*	*	*	*	*	*	*	*
Functional Status Code	*	*	*	*	*	*	*	*	*	*	*
Geographic Change User Note Indicator	*	*	*	*	*					*	*
Housing Unit Count (100 percent)	*	*	*	*	*	*	*	*	*	*	*
Internal Point (Latitude)	*	*	*	*	*	*	*	*	*	*	*
Internal Point (Longitude)	*	*	*	*	*	*	*	*	*	*	*
Part Flag					*	*	*				
Political/Statistical Area Description Code	*	*	*	*	*					*	*
Population Count (100 percent)	*	*	*	*	*	*	*	*	*	*	*
Special Flag	*	*	*	*	*	*	*	*	*	*	*

[1]See the Summary Level Sequence Chart chapter for identification of the summary level record numbers.

[2]Puerto Rico

Summary level 319	321	329	Summary level 331	340	341	Summary level 420	430	440	Summary level 450	460	Field name
											Geographic Area Codes–Con.
*	*	*	*	*	*		*	*	*		MSA/CMSA Size Code
				*	*				*	*	Place (Census)
				*	*				*	*	Place (FIPS)
				*	*				*	*	Place Class Code
				*	*				*	*	Place Description Code
				*	*				*	*	Place Size Code
	*		*		*		*	*	*		Primary Metropolitan Statistical Area
*	*	*	*	*	*	*	*	*	*	*	Region
*	*	*	*	*	*	*	*	*	*	*	State (Census)
*	*	*	*	*	*	*	*	*	*	*	State (FIPS)
						*	*	*	*	*	Urban/Rural
						*	*	*	*	*	Urbanized Area
						*	*	*	*	*	Urbanized Area Size Code
											Special Area Code (1)
											Special Area Code (2)
											Special Area Code (3)
											Special Area Code (4)
											Special Area Code (5)
											Special Area Code (6)
											Special Area Code (7)
											Special Area Code (8)
*	*	*	*	*	*	*	*	*	*	*	Special Area Code (9)
											Special Area Code (10)
											Area Characteristics
*	*	*	*	*	*	*	*	*	*	*	Area (Land)
*	*	*	*	*	*	*	*	*	*	*	Area (Water)
*	*	*	*	*	*	*	*	*	*	*	Area Name/PSAD Term/Part Indicator
*	*	*	*	*	*	*	*	*	*	*	Functional Status Code
*	*	*	*	*	*		*	*	*	*	Geographic Change User Note Indicator
*	*	*	*	*	*	*	*	*	*	*	Housing Unit Count (100 percent)
*	*	*	*	*	*	*	*	*	*	*	Internal Point (Latitude)
*	*	*	*	*	*	*	*	*	*	*	Internal Point (Longitude)
*	*	*	*	*	*	*	*	*	*	*	Part Flag
*	*	*	*	*	*	*	*	*	*	*	Political/Statistical Area Description Code
*	*	*	*	*	*	*	*	*	*	*	Population Count (100 percent)
*	*	*	*	*	*	*	*	*	*	*	Special Flag

SUBJECT LOCATOR

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INTRODUCTION

This index is designed to quickly identify the STP 19 Puerto Rico tables needed. Each table variable is listed alphabetically in bold type. Both the universe or type of entry being tabulated (shown in italics) and the relevant table numbers appear under the variable heading. If the entry variable is cross tabulated by another variable, the variable of cross tabulation is indicated beneath the universe and is preceded by the word "by." The index entries for each variable are arranged alphabetically by universe, then by variable of cross tabulation, if any. For example, if you are looking for a table tabulating college enrollment by income in 1989 for unrelated individuals 15 years and over, check the index under either of the two variables. Checking under college enrollment, you find entries for four tables. Checking the universe for unrelated individuals 15 years and over, you can see that college enrollment is cross tabulated by income in 1989 in the P10 table.

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TABLE (MATRIX) OUTLINES

Table (matrix)	Title	Total number of data cells
P1.	PERSONS(1)	1
	Universe: Persons	
	Total	
P2.	FAMILIES(1)	1
	Universe: Families	
	Total	
P3.	HOUSEHOLDS(1)	1
	Universe: Households	
	Total	
P4.	COLLEGE ENROLLMENT(2)	2
	Universe: Persons in households	
	All persons in household enrolled in college	
	All or some persons in household not enrolled in college	
P5.	FILLER(10)	10
	Filler	
	Filler	
	Filler	
	Filler	
	Filler	
	Filler	
	Filler	
	Filler	
	Filler	
	Filler	
P6.	FILLER(10)	10
	Filler	
	Filler	
	Filler	
	Filler	
	Filler	
	Filler	
	Filler	
	Filler	
	Filler	
	Filler	
P7.	HOUSEHOLD TYPE AND HOUSEHOLD SIZE AND AGE OF HOUSEHOLDER OR SPOUSE(10)	10
	Universe: Households	
	Family households:	
	2 persons:	
	Householder and/or spouse 62 years and over	
	Other	
	3 or 4 persons	
	5 or more persons	
	Nonfamily households:	
	1 person:	
	Householder 62 years and over	
	Householder under 62 years	

Table (matrix)	Title	Total number of data cells

P7. HOUSEHOLD TYPE AND HOUSEHOLD SIZE AND AGE OF HOUSEHOLDER OR SPOUSE(10)—Con.
- 2 persons:
  - Householder 62 years and over
  - Householder under 62 years
- 3 or 4 persons
- 5 or more persons

P8. COLLEGE ENROLLMENT(2) BY HOUSEHOLD SIZE(9) BY HOUSEHOLD INCOME IN 1989(22) 396

Universe: Households

All persons in household enrolled in college:
- 1 person:
  - Less than $5,000
  - $5,000 to $9,999
  - $10,000 to $12,499
  - $12,500 to $14,999
  - $15,000 to $17,499
  - $17,500 to $19,999
  - $20,000 to $22,499
  - $22,500 to $24,999
  - $25,000 to $27,499
  - $27,500 to $29,999
  - $30,000 to $32,499
  - $32,500 to $37,499
  - $37,500 to $39,999
  - $40,000 to $42,499
  - $42,500 to $44,999
  - $45,000 to $47,499
  - $47,500 to $49,999
  - $50,000 to $54,999
  - $55,000 to $59,999
  - $60,000 to $74,999
  - $75,000 to $99,999
  - $100,000 or more
- 2 persons:
  - (Repeat HOUSEHOLD INCOME IN 1989)
- 3 persons:
  - (Repeat HOUSEHOLD INCOME IN 1989)
- 4 persons:
  - (Repeat HOUSEHOLD INCOME IN 1989)
- 5 persons:
  - (Repeat HOUSEHOLD INCOME IN 1989)
- 6 persons:
  - (Repeat HOUSEHOLD INCOME IN 1989)
- 7 persons:
  - (Repeat HOUSEHOLD INCOME IN 1989)
- 8 persons:
  - (Repeat HOUSEHOLD INCOME IN 1989)
- 9 or more persons:
  - (Repeat HOUSEHOLD INCOME IN 1989)

All or some persons in household not enrolled in college:
- (Repeat HOUSEHOLD SIZE By HOUSEHOLD INCOME IN 1989)

P9. FAMILY SIZE(6) BY FAMILY INCOME IN 1989(22) 132

Universe: Families

2 persons:
- Less than $5,000
- $5,000 to $9,999
- $10,000 to $12,499
- $12,500 to $14,999
- $15,000 to $17,499
- $17,500 to $19,999
- $20,000 to $22,499
- $22,500 to $24,999

Table (matrix)	Title	Total number of data cells
P9.	FAMILY SIZE(6) BY FAMILY INCOME IN 1989(22)—Con.	
	$25,000 to $27,499	
	$27,500 to $29,999	
	$30,000 to $32,499	
	$32,500 to $37,499	
	$37,500 to $39,999	
	$40,000 to $42,499	
	$42,500 to $44,999	
	$45,000 to $47,499	
	$47,500 to $49,999	
	$50,000 to $54,999	
	$55,000 to $59,999	
	$60,000 to $74,999	
	$75,000 to $99,999	
	$100,000 or more	
	3 persons:	
	(Repeat FAMILY INCOME IN 1989)	
	4 persons:	
	(Repeat FAMILY INCOME IN 1989)	
	5 persons:	
	(Repeat FAMILY INCOME IN 1989)	
	6 persons:	
	(Repeat FAMILY INCOME IN 1989)	
	7 or more persons:	
	(Repeat FAMILY INCOME IN 1989)	
P10.	COLLEGE ENROLLMENT(2) BY INCOME IN 1989(22)	44
	Universe: Unrelated individuals 15 years and over	
	Enrolled in college:	
	Less than $5,000	
	$5,000 to $9,999	
	$10,000 to $12,499	
	$12,500 to $14,999	
	$15,000 to $17,499	
	$17,500 to $19,999	
	$20,000 to $22,499	
	$22,500 to $24,999	
	$25,000 to $27,499	
	$27,500 to $29,999	
	$30,000 to $32,499	
	$32,500 to $37,499	
	$37,500 to $39,999	
	$40,000 to $42,499	
	$42,500 to $44,999	
	$45,000 to $47,499	
	$47,500 to $49,999	
	$50,000 to $54,999	
	$55,000 to $59,999	
	$60,000 to $74,999	
	$75,000 to $99,999	
	$100,000 or more	
	Not enrolled in college:	
	(Repeat INCOME IN 1989)	
P11.	HOUSEHOLD TYPE(3) BY POVERTY STATUS IN 1989(2)	6
	Universe: Persons for whom poverty status is determined	
	In family households:	
	Income in 1989 above poverty level	
	Income in 1989 below poverty level	
	In nonfamily households:	
	(Repeat POVERTY STATUS IN 1989)	
	In group quarters:	
	(Repeat POVERTY STATUS IN 1989)	

Table (matrix)	Title	Total number of data cells
P12.	POVERTY STATUS IN 1989(2) *Universe: Families* Income in 1989 above poverty level Income in 1989 below poverty level	2
P13.	POVERTY STATUS IN 1989(2) BY COLLEGE ENROLLMENT(2) *Universe: Unrelated individuals for whom poverty status is determined* Income in 1989 above poverty level: Enrolled in college Not enrolled in college Income in 1989 below poverty level: (Repeat COLLEGE ENROLLMENT)	4
P14.	EMPLOYMENT STATUS(4) *Universe: Persons 16 years and over* In labor force: In Armed Forces Civilian: Employed Unemployed Not in labor force	4

SUMMARY LEVEL SEQUENCE CHART

HUD-PR

Summary level area	Summary level code	Geographic component code
State[1]	040	00 01-11 20-28 30-36
State—County[2]	050	00
State—County—County Subdivision[3]	060	00
State—County—County Subdivision—Place/Remainder	070	00
State—County—County Subdivision—Place/Remainder—Census Tract/Block Numbering Area	080	00
State—County—County Subdivision—Place/Remainder—Census Tract/Block Numbering Area—American Indian/Alaska Native Area/Remainder—Reservation/Trust Lands/Remainder—Alaska Native Regional Corporation/Remainder—Urbanized Area/Remainder—Urban/Rural—Congressional District—Block Group	090	00
State [Puerto Rico only]—County—County Subdivision—Subbarrio[4]	067	00
State—County—Census Tract/Block Numbering Area	140	00
State—County—Census Tract/Block Numbering Area—Block Group	150	00
State—Place—County	155	00
State—Place	160	00
State—Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area	319	00 23 24
Metropolitan Statistical Area [no CMSAs]—State—Central City	340	00
Metropolitan Statistical Area [no CMSAs]—State—County	329	00
State—Consolidated Metropolitan Statistical Area—Primary Metropolitan Statistical Area	321	00 23 24
Consolidated Metropolitan Statistical Area—Primary Metropolitan Statistical Area—State—Central City	341	00
Consolidated Metropolitan Statistical Area—Primary Metropolitan Statistical Area—State—County	331	00
State—Urbanized Area	420	00 03 04
Urbanized Area—State—Central Place	460	00

[1]Puerto Rico

[2]Municipio in Puerto Rico

[3]Barrio-pueblo or barrio in Puerto Rico

[4]In Puerto Rico, some subdivisions (barrios-pueblo and barrios) are divided into sub-minor civil divisions (subbarios).

Summary level area	Summary level code	Geographic component code
Urbanized Area—State—County	430	00
Urbanized Area—State—County—County Subdivision	440	00
Urbanized Area—State—County—County Subdivision—Place	450	00

USER NOTES

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UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, DC 20233-0001

CENSUS OF POPULATION, 1990: 1990: HUD 1990 BLOCK GRANT PROGRAM SPECIAL TABULATION 19 (STP 19), BLOCK-GROUP LEVEL FILE (PUERTO RICO)

USER NOTE 1

Age Reporting—Review of detailed 1990 information indicated that respondents tended to provide their age as of the date of completion of the questionnaire, not their age as of April 1, 1990. In addition, there may have been a tendency for respondents to round up their age if they were close to having a birthday. It is likely that approximately 10 percent of persons in most age groups are actually 1 year younger. For most single years of age, the misstatements are largely offsetting. The problem is most pronounced at age 0 because persons lost to age 1 may not have been fully offset by the inclusion of babies born after April 1, 1990 and because there may have been more rounding up to age 1 to avoid reporting age as 0 years. (Age in completed months was not collected for infants under age 1.)

The reporting of age 1 year older than age on April 1, 1990 is likely to have been greater in areas where the census data were collected later in 1990. The magnitude of this problem was much less in the three previous censuses where age was typically derived from respondent data on year of birth and quarter of birth. (For more information on the design of the age question, see the discussion on comparability under "Age" in appendix B.)

September 1993

UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, DC 20233-0001

CENSUS OF POPULATION, 1990: 1990: HUD 1990 BLOCK GRANT PROGRAM SPECIAL TABULATION 19 (STP 19), BLOCK-GROUP LEVEL FILE (PUERTO RICO)

USER NOTE 2

Clarification of Differences Between 100-Percent Counts and Sample Estimates—Estimated population and housing unit totals based on tabulations from only the sample questionnaires (sample tabulations) may differ from the official counts as tabulated from every census questionnaire (100-percent tabulations). Such differences result, in part, because the sample tabulations are based on information from a sample of households rather than from all households (sampling error). Differences also can occur because the interview situation (length of questionnaire, effect of the interviewer, and so forth) and the processing rules differ somewhat between the 100-percent and sample tabulations. These types of differences are reflected in what is called nonsampling error. (For a more detailed description of nonsampling error, see Appendix C, "Accuracy of the Data," in the technical documentation.)

The 100-percent data are the official counts and should be used as the source of information on items collected on the 100-percent questionnaire, such as age, number of rooms, and tenure in housing. This is especially appropriate when the primary focus is on counts of the population or housing units for small areas such as census tracts/BNA's and block groups. For estimates of counts of persons and housing units by characteristics asked only on a sample basis (such as education, labor force status, income, and source of water), the sample estimates should be used within the context of the error associated with them.

Many users are interested in tabulations of items collected on the sample cross-classified by items collected on a 100-percent basis such as age, sex, and housing units by tenure. Given the way the weights were applied during sample tabulations, generally there is exact agreement between sample estimates and 100-percent counts for total population and total housing units for most geographic areas. At the state, sample estimates and 100-percent counts for population by age, sex, and for housing units by tenure, number of rooms, and so on would be reasonably similar and, in some cases, the same.

At smaller geographic levels, including census tract/BNA, there is still general agreement between 100-percent counts and sample estimates of total population or housing units. At smaller geographic levels, however, there will be expected differences between sample estimates and 100-percent counts for population by age, sex, and for housing units by tenure, number of rooms, and so on. In these cases, users may want to consider using derived measures (such as means, and medians) or percent distributions. Whether using absolute numbers or derived measures for small population groups and for a small number of housing units in small geographic areas, users should be cautioned that the sampling error associated with these data may be large.

As we have done in previous censuses, the Census Bureau will evaluate the quality of the data and make this information available to data users. In the meanwhile, both 100-percent and sample data serve very important purposes and, therefore, should be used within the limitations of the sampling and nonsampling errors.

September 1993

UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, DC 20233-0001

CENSUS OF POPULATION, 1990: 1990: HUD 1990 BLOCK GRANT PROGRAM SPECIAL TABULATION 19 (STP 19), BLOCK-GROUP LEVEL FILE (PUERTO RICO)

USER NOTE 3

Appendix G. The latitude and longitude values shown by tick marks in the margins of the Municipio Subdivision Outline Maps in appendix G are approximate. They area shown only for general reference. They are displayed accurately on the Area and Municipio Outline Maps.

September 1993

UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, DC 20233-0001

CENSUS OF POPULATION, 1990:
1990: HUD 1990 BLOCK GRANT PROGRAM SPECIAL TABULATION 19 (STP 19), BLOCK-GROUP LEVEL FILE (PUERTO RICO)

USER NOTE 4

Employment Status——The procedures used to classify persons by employment status in the 1990 Census of Puerto Rico differed from those used for the United States in the handling of responses concerning layoff status. A significant number of persons in Puerto Rico who are classified as "not in labor force" would have been incorrectly classified as "unemployed" if the classification procedures for Puerto Rico had been identical to those for the United States.

September 1993

UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, DC 20233-0001

CENSUS OF POPULATION, 1990:
1990: HUD 1990 BLOCK GRANT PROGRAM SPECIAL TABULATION 19 (STP 19), BLOCK-GROUP LEVEL FILE (PUERTO RICO)

USER NOTE 5

Poverty Status in 1989—A minor error has been detected in the determination of poverty status for persons and families in the 1990 census. For families with a householder or spouse under the age of 18, an incorrect poverty threshold was used to determine poverty status. This resulted in the misclassification of 720 families in the United States and 6 families in both Puerto Rico and the U.S. Virgin Islands as either poor or not poor. Due to the small number of families affected, no correction has been applied. Weighted estimates of affected cases are listed below by State.

Families misclassified as:	Poor	Not Poor	Net difference in number poor
United States, excluding Puerto Rico and the Virgin Islands	388	332	–56
Alabama	11	2	–9
Alaska	7	0	–7
Arizona	15	0	–15
Arkansas	0	0	0
California	62	75	13
Colorado	9	0	–9
Connecticut	0	7	7
Delaware	0	0	0
District of Colombia	0	0	0
Florida	22	21	–1
Georgia	25	0	–25
Hawaii	0	0	0
Idaho	12	0	–12
Illinois	3	0	–3
Indiana	4	0	–4
Iowa	6	0	–6
Kansas	0	9	9
Kentucky	25	22	–3
Louisiana	17	11	–6
Maine	0	0	0
Maryland	0	3	3
Massachusetts	0	25	25
Michigan	7	2	–5
Minnesota	0	0	0
Mississippi	4	0	–4
Missouri	5	0	–5
Montana	3	0	–3

Nebraska	0	0	0
Families misclassified as:	Poor	Not Poor	Net difference in number poor
Nevada	0	0	0
New Hampshire	0	0	0
New Jersey	0	15	15
New Mexico	0	0	0
New York	4	49	45
North Carolina	0	22	22
North Dakota	0	0	0
Ohio	0	13	13
Oklahoma	6	15	9
Oregon	0	0	0
Pennsylvania	30	0	–30
Rhode Island	0	0	0
South Carolina	10	0	–10
South Dakota	0	0	0
Tennessee	2	3	1
Texas	65	18	–47
Utah	0	18	18
Vermont	0	0	0
Virginia	8	2	–6
Washington	7	0	–7
West Virginia	5	0	–5
Wisconsin	6	0	–6
Wyoming	6	0	–6
Puerto Rico	0	5	5
Virgin Islands	0	1	1

September 1993

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DATA DICTIONARY

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IDENTIFICATION SECTION

Field name	Data dictionary reference name	Field size	Starting position	Data type
Record Codes				
File Identification [1]	FILEID	8	1	A/N
State/US Abbreviation	STUSAB	2	9	A

AK	Alaska	GU	Guam	MP	Northern Mariana Islands	PW	Palau
AL	Alabama	HI	Hawaii	MS	Mississippi	RI	Rhode Island
AR	Arkansas	IA	Iowa	MT	Montana	SC	South Carolina
AS	American Samoa	ID	Idaho	NC	North Carolina	SD	South Dakota
AZ	Arizona	IL	Illinois	ND	North Dakota	TN	Tennessee
CA	California	IN	Indiana	NE	Nebraska	TX	Texas
CO	Colorado	KS	Kansas	NH	New Hampshire	US	United States
CT	Connecticut	KY	Kentucky	NJ	New Jersey	UT	Utah
DC	District of Columbia	LA	Louisiana	NM	New Mexico	VA	Virginia
		MA	Massachusetts	NV	Nevada	VI	Virgin Islands of the United States
DE	Delaware	MD	Maryland	NY	New York		
FL	Florida	ME	Maine	OH	Ohio	VT	Vermont
FM	Federated States of Micronesia	MH	Marshall Islands	OK	Oklahoma	WA	Washington
		MI	Michigan	OR	Oregon	WI	Wisconsin
		MN	Minnesota	PA	Pennsylvania	WV	West Virginia
GA	Georgia	MO	Missouri	PR	Puerto Rico	WY	Wyoming

Summary Level [2]	SUMLEV	3	11	N
Geographic Component [3]	GEOCOMP	2	14	N

00	Not a geographic component
01	Urban
02	Urban—in urbanized area
03	Urban—in urbanized area—in urbanized area central place
04	Urban—in urbanized area—not in urbanized area central place
05	Urban—not in urbanized area
06	Urban—not in urbanized area—place [10,000 or more persons]
07	Urban—not in urbanized area—place [2,500 to 9,999 persons]
08	Rural
09	Rural—place [1,000 to 2,499 population, not in an extended city]
10	Rural—place [0 to 999 population, not in an extended city]
11	Rural—not in place [or rural part of extended city]
12	Rural—farm
13	Urban portion of extended city
14	Rural portion of extended city
20	In metropolitan statistical area/consolidated metropolitan statistical area
21	In metropolitan statistical area/consolidated metropolitan statistical area—urban
22	In metropolitan statistical area/consolidated metropolitan statistical area—rural

NOTE: See footnotes at the end of this section.

IDENTIFICATION SECTION—Con.

Field name	Data dictionary reference name	Field size	Starting position	Data type

23 In metropolitan statistical area/consolidated metropolitan statistical area—in metropolitan statistical area/primary metropolitan statistical area central city
24 In metropolitan statistical area/consolidated metropolitan statistical area—not in metropolitan statistical area/primary metropolitan statistical area central city
25 In metropolitan statistical area/consolidated metropolitan statistical area—not in metropolitan statistical area/primary metropolitan statistical area central city—urban
26 In metropolitan statistical area/consolidated metropolitan statistical area—not in metropolitan statistical area/primary metropolitan statistical area central city—urban—in urbanized area
27 In metropolitan statistical area/consolidated metropolitan statistical area—not in metropolitan statistical area/primary metropolitan statistical area central city—urban—not in urbanized area
28 In metropolitan statistical area/consolidated metropolitan statistical area—not in metropolitan statistical area/primary metropolitan statistical area central city—rural
30 Not in metropolitan statistical area/consolidated metropolitan statistical area
31 Not in metropolitan statistical area/consolidated metropolitan statistical area—urban
32 Not in metropolitan statistical area/consolidated metropolitan statistical area—urban—in urbanized area
33 Not in metropolitan statistical area/consolidated metropolitan statistical area—urban—not in urbanized area
34 Not in metropolitan statistical area/consolidated metropolitan statistical area—urban—not in urbanized area—place [10,000 or more population]
35 Not in metropolitan statistical area/consolidated metropolitan statistical area—urban—not in urbanized area—place [2,500 - 9,999 population]
36 Not in metropolitan statistical area/consolidated metropolitan statistical area—rural
40 American Indian reservation and trust land [American Indian reservations (AIR codes 0001-4989) including any trust lands]
42 Tribal Jurisdiction Statistical Area [Oklahoma only]
43 Tribal Designated Statistical Area
44 Alaska Native village statistical area [Alaska only]

Characteristic Iteration [4]	CHARITER	3	16	N

000 Not a characteristic iteration

Logical Record Number [5]	LOGRECNU	6	19	N
Logical Record Part Number [6]	LOGRECPN	4	25	N
Total Number of Parts in Record [7]	PARTREC	4	29	N

Geographic Area Codes

Alaska Native Regional Corporation [8]	ANRC	2	33	A/N

07	Ahtna	28	Bering Straits	49	Chugach	70	Koniag
14	Aleut	35	Bristol Bay	56	Cook Inlet	77	NANA
21	Arctic Slope	42	Calista	63	Doyon	84	Sealaska

American Indian/Alaska Native Area (Census) [9]	AIANACE	4	35	A/N
American Indian/Alaska Native Area (FIPS) [10]	AIANAFP	5	39	A/N
American Indian/Alaska Native Area Class Code	AIANACC	2	44	A/N

D1 Federally recognized American Indian reservation that does not serve as a minor civil division (MCD) equivalent
D2 Federally recognized American Indian reservation that also serves as an MCD equivalent
D3 American Indian tribal government that holds property in trust—"trust land"—for a tribe or individual member(s) of the tribe, and the trust land(s) is not associated with a specific American Indian reservation or the associated American Indian reservation is not located in this State
D4 State-recognized American Indian reservation that does not serve as an MCD equivalent
D5 State-recognized American Indian reservation that also serves as an MCD equivalent

NOTE: See footnotes at the end of this section.

IDENTIFICATION SECTION—Con.

Field name	Data dictionary reference name	Field size	Starting position	Data type

D6 Tribal designated statistical area (TDSA); tribal jurisdiction statistical area (TJSA) (TJSAs occur only in Oklahoma)
E1 Alaska Native village statistical area (ANVSA) that does not coincide with or approximate an incorporated place or a census designated place (CDP)
E2 ANVSA that coincides with or approximates a CDP
E6 ANVSA that coincides with or approximates an incorporated place

American Indian Reservation Trust Land Indicator Code	ARTLI	1	46	A/N

1 American Indian reservation; including Tribal Jurisdiction Statistical Area (TJSA) and Tribal Designated Statistical Area (TDSA)
2 Off-reservation trust land
9 Not an American Indian area

Block [8]	BLCK	4	47	A/N
Block Group [8]	BLCKGR	1	51	A/N
Census Tract/Block Numbering Area [8]	TRACTBNA	6	52	A/N
Congressional District (101st Congress) [8]	CONGDIS	2	58	A/N

01-45 The actual congressional district number
00 Applies to States whose representative is elected "at large"; i.e., the State has only one representative in the United States House of Representatives
98 Applies to areas that have a nonvoting delegate in the United States House of Representatives
99 Applies to areas that have no representation in the United States House of Representatives

Consolidated City (Census) [8]	CONCITCE	1	60	A/N	

B	Butte-Silver Bow, Montana	I	Indianapolis, Indiana	M	Milford, Connecticut
C	Columbus, Georgia	J	Jacksonville, Florida	N	Nashville-Davidson, Tennessee

Consolidated City (FIPS) [8,10]	CONCITFP	5	61	A/N
Consolidated City Class Code [10]	CONCITCC	2	66	A/N

C3 Consolidated city

Consolidated City Population Size Code	CONCITSC	2	68	A/N

00 Not in universe	06 250-299	12 2,500-4,999	18 100,000-249,999
01 0	07 300-499	13 5,000-9,999	19 250,000-499,999
02 1-24	08 500-999	14 10,000-19,999	20 500,000-999,999
03 25-99	09 1,000-1,499	15 20,000-24,999	21 1,000,000-2,499,999
04 100-199	10 1,500-1,999	16 25,000-49,999	22 2,500,000-4,999,999
05 200-249	11 2,000-2,499	17 50,000-99,999	23 5,000,000 or more

Consolidated Metropolitan Statistical Area [9]	CMSA	2	70	A/N
County [9]	CNTY	3	72	A/N

NOTE: See footnotes at the end of this section.

IDENTIFICATION SECTION—Con.

Field name	Data dictionary reference name	Field size	Starting position	Data type
County Population Size Code	CNTYSC	2	75	A/N

00 Not in universe	06 250-299	12 2,500-4,999	18 100,000-249,999
01 0	07 300-499	13 5,000-9,999	19 250,000-499,999
02 1-24	08 500-999	14 10,000-19,999	20 500,000-999,999
03 25-99	09 1,000-1,499	15 20,000-24,999	21 1,000,000-2,499,999
04 100-199	10 1,500-1,999	16 25,000-49,999	22 2,500,000-4,999,999
05 200-249	11 2,000-2,499	17 50,000-99,999	23 5,000,000 or more

County Subdivision (Census) [9]	COUSUBCE	3	77	A/N
County Subdivision (FIPS) [10]	COUSUBFP	5	80	A/N
County Subdivision Class Code	COUSUBCC	2	85	A/N

C2 Incorporated place that also serves as a minor civil division (MCD) equivalent because, although the place is coextensive with an MCD, the Census Bureau, in agreement with State officials, does not recognize that MCD for presenting census data because the MCD cannot provide governmental services (Ohio only)
C5 Incorporated place that also serves as an MCD equivalent because it is not part of an MCD or a county subdivision classified as Z5
C7 Incorporated place that also serves as a county equivalent and an MCD equivalent; generally referred to as an "independent city"
D2 Federally recognized American Indian reservation that also serves as an MCD equivalent
D5 State-recognized American Indian reservation that also serves as an MCD equivalent
T1 Governmentally active minor civil division (MCD) that is not coextensive with an incorporated place
T5 Governmentally active MCD that is coextensive with an incorporated place
Z1 MCD that is governmentally inactive or cannot provide general-purpose governmental services
Z3 Unorganized territory identified by the Census Bureau as an MCD equivalent for presenting census data
Z5 Census county division (CCD); census subarea (CSA) (Alaska only); census subdistrict (Virgin Islands only)
Z7 Incorporated place that the Census Bureau treats as a minor civil division (MCD) equivalent because it is not in any MCD or is coextensive with a legally established but nonfunctioning MCD that the Census Bureau does not recognize for data presentation, AND is located in a State or county whose MCD's cannot provide governmental services (Iowa and Nebraska only)

County Subdivision Population Size Code	COUSUBSC	2	87	A/N

00 Not in universe	06 250-299	12 2,500-4,999	18 100,000-249,999
01 0	07 300-499	13 5,000-9,999	19 250,000-499,999
02 1-24	08 500-999	14 10,000-19,999	20 500,000-999,999
03 25-99	09 1,000-1,499	15 20,000-24,999	21 1,000,000-2,499,999
04 100-199	10 1,500-1,999	16 25,000-49,999	22 2,500,000-4,999,999
05 200-249	11 2,000-2,499	17 50,000-99,999	23 5,000,000 or more

Division [8]	DIVIS	1	89	A/N

0 Not in a division	4 West North Central	7 West South Central
1 New England	5 South Atlantic	8 Mountain
2 Middle Atlantic	6 East South Central	9 Pacific
3 East North Central		

Extended City Indicator [8]	EXTCITIN	1	90	A/N

1 Extended city	9 Not an extended city

Internal Use Code [11]	INTUC	15	91	A/N

NOTE: See footnotes at the end of this section.

IDENTIFICATION SECTION—Con.

Field name	Data dictionary reference name	Field size	Starting position	Data type
Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area [9]	MSACMSA	4	106	A/N
MSA/CMSA Population Size Code	MSACMSAS	2	110	A/N

00 Not in universe	06 250-299	12 2,500-4,999	18 100,000-249,999
01 0	07 300-499	13 5,000-9,999	19 250,000-499,999
02 1-24	08 500-999	14 10,000-19,999	20 500,000-999,999
03 25-99	09 1,000-1,499	15 20,000-24,999	21 1,000,000-2,499,999
04 100-199	10 1,500-1,999	16 25,000-49,999	22 2,500,000-4,999,999
05 200-249	11 2,000-2,499	17 50,000-99,999	23 5,000,000 or more

Place (Census) [9]	PLACECE	4	112	A/N
Place (FIPS) [10]	PLACEFP	5	116	A/N
Place Class Code	PLACECC	2	121	A/N

C1 Incorporated place that is governmentally active, is not related to an Alaska Native village statistical area (ANVSA), and does not serve as a minor civil division (MCD) equivalent
C2 Incorporated place that also serves as a minor civil division (MCD) equivalent because, although the place is coextensive with an MCD, the Census Bureau, in agreement with State officials, does not recognize that MCD for presenting census data because the MCD cannot provide governmental services (Iowa and Ohio only)
C5 Incorporated place that also serves as an MCD equivalent because it is not part of an MCD
C6 Incorporated place that coincides with or approximates an ANVSA
C7 Incorporated place that also serves as a county equivalent; generally referred to as an "independent city"
C8 The portion ("remainder") of a consolidated city that excludes the incorporated place(s) within that jurisdiction
C9 Incorporated place whose government is operationally inactive and is not included in any other C subclass
M2 Military or Coast Guard installation (or part of an installation) that serves as a census designated place (CDP)
U1 CDP with a name that is commonly recognized for the populated area
U2 CDP with a name that is not commonly recognized for the populated area (e.g., a combination of the names of two or three commonly recognized communities, or a name that identifies the location of the CDP in relation to an adjacent incorporated place)
U9 CDP that coincides with or approximates an ANVSA.

Note: In Ohio, a multi-county place that has a different MCD relationship in each county is assigned only a single class code of C1, C2, or C5.

Place Description Code	PLACEDC	1	123	A/N

1 Incorporated central city of a metropolitan statistical area/primary metropolitan statistical area (MSA/PMSA), but not a central place of an urbanized area (UA)
2 Incorporated central place of an urbanized area (UA), but not a central city of a metropolitan statistical area/primary metropolitan statistical area (MSA/PMSA)
3 Incorporated central city of a metropolitan statistical area/primary metropolitan statistical area (MSA/PMSA) and a central place of an urbanized area (UA)
4 Consolidated city or an incorporated place that is not a central city of a metropolitan statistical area/primary metropolitan statistical area (MSA/PMSA) and not a central place of an urbanized area (UA)
5 Incorporated place, which is the central place of an urbanized area (UA), but only part of which is the central city of a metropolitan statistical area/primary metropolitan statistical area (MSA/PMSA)
6 Incorporated place, which is not a central place of an urbanized area (UA), but part of which is the central city of a metropolitan statistical area/primary metropolitan statistical area (MSA/PMSA)
A Census designated place (CDP) that is a central place of an urbanized area (UA), but not a central city of a metropolitan statistical area/primary metropolitan statistical area (MSA/PMSA)
B Census designated place (CDP) that is a central city of a metropolitan statistical area/primary metropolitan statistical area (MSA/PMSA), but not a central place of an urbanized area (UA)
C Census designated place (CDP) that is a central city of a metropolitan statistical area/primary metropolitan statistical area (MSA/PMSA) and a central place of an urbanized area (UA)

NOTE: See footnotes at the end of this section.

Field name	Data dictionary reference name	Field size	Starting position	Data type

D Census designated place (CDP) that is in a 1980 or special census urbanized area (UA) and is not a central city or a central place; these CDP's must have a 1990 population of at least 300 in Hawaii and the Virgin Islands of the United States, 1,000 in Puerto Rico, and 2,500 elsewhere

E Census designated place (CDP) not classified elsewhere; these CDP's must meet the following minimum population requirements:
- 300 in Hawaii, the Virgin Islands of the United States, and the Pacific Outlying Areas
- 25 in Alaska
- 1,000 in all other States and Puerto Rico

F Zona urbana that is a central place of an urbanized area (UA) in Puerto Rico, but not a central city of a metropolitan statistical area/primary metropolitan statistical area (MSA/PMSA)

G Zona urbana that is a central city of a metropolitan statistical area/primary metropolitan statistical area (MSA/PMSA) in Puerto Rico, but not a central place of an urbanized area (UA)

H Zona urbana that is a central city of a metropolitan statistical area/primary metropolitan statistical area (MSA/PMSA) and a central place of an urbanized area (UA)

I Zona urbana in Puerto Rico that is not a central city or a central place

J Census designated place that is the capital of an outlying area

L Census designated place (CDP) entirely within an American Indian reservation and entirely outside of a 1980 or special census urbanized area (UA); these CDP's must have a 1990 population of at least 25 in Alaska and 250 elsewhere

Place Population Size Code	PLACESC	2	124	A/N

00	Not in universe	06	250-299	12	2,500-4,999	18	100,000-249,999
01	0	07	300-499	13	5,000-9,999	19	250,000-499,999
02	1-24	08	500-999	14	10,000-19,999	20	500,000-999,999
03	25-99	09	1,000-1,499	15	20,000-24,999	21	1,000,000-2,499,999
04	100-199	10	1,500-1,999	16	25,000-49,999	22	2,500,000-4,999,999
05	200-249	11	2,000-2,499	17	50,000-99,999	23	5,000,000 or more

Primary Metropolitan Statistical Area [9]	PMSA	4	126	A/N
Region [8]	REG	1	130	A/N

1 Northeast 2 Midwest 3 South 4 West

State (Census) [8]	STATECE	2	131	A/N

01	Northern Mariana Islands	22	New Jersey	52	Maryland	73	Oklahoma
02	Palau	23	Pennsylvania	53	District of Columbia	74	Texas
03	American Samoa	31	Ohio			81	Montana
04	Guam	32	Indiana	54	Virginia	82	Idaho
06	Puerto Rico	33	Illinois	55	West Virginia	83	Wyoming
07	Virgin Islands of the United States	34	Michigan	56	North Carolina	84	Colorado
		35	Wisconsin	57	South Carolina	85	New Mexico
09	Federated States of Micronesia and Marshall Islands	41	Minnesota	58	Georgia	86	Arizona
		42	Iowa	59	Florida	87	Utah
11	Maine	43	Missouri	61	Kentucky	88	Nevada
12	New Hampshire	44	North Dakota	62	Tennessee	91	Washington
13	Vermont	45	South Dakota	63	Alabama	92	Oregon
14	Massachusetts	46	Nebraska	64	Mississippi	93	California
15	Rhode Island	47	Kansas	71	Arkansas	94	Alaska
16	Connecticut	51	Delaware	72	Louisiana	95	Hawaii
21	New York						

NOTE: See footnotes at the end of this section.

IDENTIFICATION SECTION—Con.

Field name	Data dictionary reference name	Field size	Starting position	Data type
State (FIPS) [8]	STATEFP	2	133	A/N

01 Alabama	19 Iowa	34 New Jersey	50 Vermont
02 Alaska	20 Kansas	35 New Mexico	51 Virginia
04 Arizona	21 Kentucky	36 New York	53 Washington
05 Arkansas	22 Louisiana	37 North Carolina	54 West Virginia
06 California	23 Maine	38 North Dakota	55 Wisconsin
08 Colorado	24 Maryland	39 Ohio	56 Wyoming
09 Connecticut	25 Massachusetts	40 Oklahoma	60 American Samoa
10 Delaware	26 Michigan	41 Oregon	64 Federated States of Micronesia
11 District of Columbia	27 Minnesota	42 Pennsylvania	66 Guam
	28 Mississippi	44 Rhode Island	68 Marshall Islands
12 Florida	29 Missouri	45 South Carolina	69 Northern Mariana Islands
13 Georgia	30 Montana	46 South Dakota	70 Palau
15 Hawaii	31 Nebraska	47 Tennessee	72 Puerto Rico
16 Idaho	32 Nevada	48 Texas	78 Virgin Islands of the United States
17 Illinois	33 New Hampshire	49 Utah	
18 Indiana			

Field name	Data dictionary reference name	Field size	Starting position	Data type
Urban/Rural [8]	URBANRUR	1	135	A/N

1 Urban	2 Rural

Field name	Data dictionary reference name	Field size	Starting position	Data type
Urbanized Area [9]	URBAREA	4	136	A/N
Urbanized Area Population Size Code	UASC	2	140	A/N

00 Not in universe	06 250-299	12 2,500-4,999	18 100,000-249,999
01 0	07 300-499	13 5,000-9,999	19 250,000-499,999
02 1-24	08 500-999	14 10,000-19,999	20 500,000-999,999
03 25-99	09 1,000-1,499	15 20,000-24,999	21 1,000,000-2,499,999
04 100-199	10 1,500-1,999	16 25,000-49,999	22 2,500,000-4,999,999
05 200-249	11 2,000-2,499	17 50,000-99,999	23 5,000,000 or more

Field name	Data dictionary reference name	Field size	Starting position	Data type
Special Area Code (1)	SAC1	5	142	A/N
Special Area Code (2)	SAC2	5	147	A/N
Special Area Code (3)	SAC3	4	152	A/N
Special Area Code (4)	SAC4	4	156	A/N
Special Area Code (5)	SAC5	3	160	A/N
Special Area Code (6)	SAC6	3	163	A/N
Special Area Code (7)	SAC7	2	166	A/N
Special Area Code (8)	SAC8	2	168	A/N
Special Area Code (9)	SAC9	1	170	A/N
Special Area Code (10)	SAC10	1	171	A/N
Area Characteristics				
Area (land) [12]	AREALAND	10	172	A/N
Area (water) [13]	AREAWAT	10	182	A/N
Area Name/PSAD Term/Part Indicator [14]	ANPSADPI	66	192	A/N

NOTE: See footnotes at the end of this section.

IDENTIFICATION SECTION—Con.

Field name	Data dictionary reference name	Field size	Starting position	Data type
Functional Status Code	FUNCSTAT	1	258	A/N

A Active governmental unit, except American Indian reservations and Alaska Native village statistical areas. — An active governmental unit has the legal capacity to have officers, to raise revenue, and to conduct governmental activities under State laws, and currently is doing so.
B Functioning governmental unit providing no substantive governmental services. — These areas may be coextensive with and administered by officials of another governmental unit (such as towns in Connecticut that are coextensive with cities), or the number of officials and/or the functions they perform are so minimal and/or vestigial that the Census Bureau does not recognize them as governmental units for census purposes (such as townships in Iowa).
F False entity. — In order to maintain complete coverage of every State at the county level and of every county at the county subdivision level, we create false entities at these levels for any place that is independent of a county or independent of a minor civil division (MCD). This code also is used for place records that represent the remainder of a consolidated city or the remainder of a county subdivision.
I Inactive governmental unit. — An inactive governmental unit has the legal capacity to be active, but currently has no legal officers, raises no revenues, and conducts no activities.
N Nonfunctioning governmental unit. — A nonfunctioning governmental unit has legally established boundaries, but has no legal capacity to conduct governmental activity.
R An American Indian reservation, an American Indian tribe whose name is associated with trust lands, or an Alaska Native village statistical area.
S Statistical entity, except Alaska Native village statistical areas and tribal jurisdiction statistical areas. — A statistical entity has no governmental status and is defined by or in cooperation with the Census Bureau or other Federal agency. This category includes census regions, census divisions, census county divisions (CCDs), census designated places (CDPs), metropolitan areas (MSA/CMSA/PMSAs), urbanized areas (UAs), unorganized territories (UTs), tribal designated statistical areas (TDSAs), census areas and census subareas in Alaska, and comunidades and zonas urbanas in Puerto Rico.
T Tribal jurisdiction statistical area.— A tribal jurisdiction statistical area (TJSA) is not a legally defined governmental unit, but is recognized as a statistical area for the 1990 census. These areas exist only in the State of Oklahoma and were not recognized separately in 1980.

Geographic Change User Note Indicator	GCUNI	1	259	A/N

0 No geographic change note for the area within the summary level
1 See User Notes for a geographic change note

Housing Unit Count (100 percent) [15]	HU100	9	260	A/N
Internal Point (latitude) [16]	INTPTLAT	9	269	A/N
Internal Point (longitude) [17]	INTPTLNG	10	278	A/N
Part Flag	PARTFLAG	1	288	A/N

0 Not a part 1 Part

Political/Statistical Area Description Code	PSADC	2	289	A/N

01 State or State equivalent—no status is appended to the name of the entity in census publications and related data products.
04 Borough—county equivalent in Alaska; "Borough" is appended to the name of the entity in census publications and related data products.
05 Census area—county equivalent in Alaska; "Census Area" is appended to the name of the entity in census publications and related data products.
06 County—"County" is appended to the name of the entity in census publications and related data products.
07 District—county equivalent in American Samoa; "District" is appended to the name of the entity in census publications and related data products.
08 Independent city—county equivalent in Maryland, Missouri, and Virginia; "city" is appended to the name of the entity in census publications and related data products.

NOTE: See footnotes at the end of this section.

IDENTIFICATION SECTION—Con.

Field name	Data dictionary reference name	Field size	Starting position	Data type

09 Independent city—county equivalent in Nevada; no status is appended to the name of the entity in census publications and related data products.
10 Island—county equivalent in Virgin Islands of the United States; "Island" is appended to the name of the entity in census publications and related data products.
11 Island—county equivalent in American Samoa; no status is appended to the name of the entity in census publications and related data products.
12 Municipality—county equivalent in Northern Mariana Islands; "Municipality" is appended to the name of the entity in census publications and related data products.
13 Municipio—county equivalent in Puerto Rico; "Municipio" is appended to the name of the entity in census publications and related data products.
14 (none)—county equivalent; used at county level for the District of Columbia and Yellowstone National Park (Montana). No status is appended to the name of the entity in census publications and related data products.
15 Parish—county equivalent in Louisiana; "Parish" is appended to the name of the entity in census publications and related data products.
16 State—county equivalent in Palau; "State" is appended to the name of the entity in census publications and related data products.
19 American Indian reservation—minor civil division (MCD) in Maine and New York; "Reservation" is appended to the name of the entity in census publications and related data products.
20 Barrio—minor civil division (MCD) in Puerto Rico; "barrio" is appended to the name of the entity in census publications and related data products.
21 Borough—minor civil division (MCD) in New York; MCD equivalent in New Jersey and Pennsylvania; "borough" is appended to the name of the entity in census publications and related data products.
22 Census county division (CCD)—minor civil division (MCD) equivalent in 21 States; "division" is appended to the name of the entity in census publications and related data products.
23 Census subarea—minor civil division (MCD) equivalent in Alaska; "census subarea" is appended to the name of the entity in census publications and related data products.
24 Census subdistrict—minor civil division (MCD) equivalent in the Virgin Islands of the United States; "subdistrict" is appended to the name of the entity in census publications and related data products.
25 City—minor civil division (MCD) equivalent in 20 States and the District of Columbia; "city" is appended to the name of the entity in census publications and related data products.
26 County—minor civil division (MCD) of a district in American Samoa; "county" is appended to the name of the entity in census publications and related data products.
27 District (magisterial, road)—minor civil division (MCD) in Pennsylvania, Virginia, and West Virginia; "district" is appended to the name of the entity in census publications and related data products.
28 District (assessment, election, magisterial, supervisors', or parish governing authority)—minor civil division (MCD) in Louisiana, Maryland, Mississippi, and West Virginia; no status is appended to the name of the entity in census publications and related data products.
29 Election precinct—minor civil division (MCD) in Illinois and Nebraska; "precinct" is appended to the name of the entity in census publications and related data products.
30 Election precinct—minor civil division (MCD) in Illinois and Nebraska; no status is appended to the name of the entity in census publications and related data products.
31 Gore—minor civil division (MCD) in Maine and Vermont; "gore" is appended to the name of the entity in census publications and related data products.
32 Grant—minor civil division (MCD) in New Hampshire and Vermont; "grant" is appended to the name of the entity in census publications and related data products.
33 Independent city—minor civil division (MCD) equivalent in Maryland, Missouri, and Virginia; "city" is appended to the name of the entity in census publications and related data products.
34 Not used.
35 Island—minor civil division (MCD) in American Samoa; no status is appended to the name of the entity in census publications and related data products.
36 Location—minor civil division (MCD) in New Hampshire; "location" is appended to the name of the entity in census publications and related data products.
37 Municipality—minor civil division (MCD) in Palau; "municipality" is appended to the name of the entity in census publications and related data products.
38 (none)—minor civil division (MCD) equivalent for Arlington County, Virginia; no status is appended to the name of the entity in census publications and related data products.
39 Plantation—minor civil division (MCD) in Maine; "plantation" is appended to the name of the entity in census publications and related data products.

NOTE: See footnotes at the end of this section.

IDENTIFICATION SECTION—Con.

Field name	Data dictionary reference name	Field size	Starting position	Data type

40 Plantation—minor civil division (MCD) in Maine; no status is appended to the name of the entity in census publications and related data products.
41 Barrio-pueblo—minor civil division (MCD) in Puerto Rico; "barrio-pueblo" is appended to the name of the entity in census publications and related data products.
42 Purchase—minor civil division (MCD) in New Hampshire; "purchase" is appended to the name of the entity in census publications and related data products.
43 Town—minor civil division (MCD) in 8 States; MCD equivalent in New Jersey, Pennsylvania, and South Dakota; "town" is appended to the name of the entity in census publications and related data products.
44 Township—minor civil division (MCD) in 16 States; "township" is appended to the name of the entity in census publications and related data products.
45 Township—minor civil division (MCD) in Kansas, Nebraska, and North Carolina; no status is appended to the name of the entity in census publications and related data products.
46 Unorganized territory—minor civil division (MCD) in 9 States; "unorg." is appended to the name of the entity in census publications and related data products.
47 Village—minor civil division (MCD) equivalent in New Jersey, Ohio, South Dakota, and Wisconsin; "village" is appended to the name of the entity in census publications and related data products.
48 State—minor civil division (MCD) in Palau; "state " is appended to the name of the entity in census publications and related data products.
49 Charter township—minor civil division (MCD) in Michigan; "charter township" is appended to the name of the entity in Census Bureau publications and other data products.
51 Subbarrio—sub-minor civil division (sub-MCD) in Puerto Rico; "subbarrio" is appended to the name of the entity in census publications and related data products.
55 Comunidad—place (census designated place) in Puerto Rico: "comunidad" is appended to the name of the entity in census publications and related data products.
56 Borough—place in Connecticut, New Jersey, and Pennsylvania; "borough" is appended to the name of the entity in census publications and related data products.
57 Census designated place—place; "CDP" is appended to the name of the entity in census publications and related data products.
58 City—place; "city" is appended to the name of the entity in census publications and related data products.
59 City—place; used for some cities that have a unique description, no description, or a description included with their name, as follows:
Anaconda-Deer Lodge County (Montana): incorporated municipality;
Butte-Silver Bow (remainder) (Montana): (none);
Carson City, Nevada: (none);
Columbus city (remainder) (Georgia): (none);
Indianapolis city (remainder) (Indiana): (none);
Jacksonville city (remainder) (Florida): (none);
Lexington-Fayette (Kentucky): Urban County Government:
Lynchburg-Moore County (Tennessee): (none);
Milford city (remainder) (Connecticut): (none);
Nashville-Davidson (remainder) (Tennessee): "Metropolitan Government of Nashville and Davidson County";
No status is appended to the name of the entity in census publications and related data products.
60 Town—place; place in 30 States and the Virgin Islands of the United States; "town" is appended to the name of the entity in census publications and related data products.
61 Village—place; place in 19 States; "village" is appended to the name of the entity in census publications and related data products.
62 Zona urbana—place (census designated place) in Puerto Rico; "zona urbana" is appended to the name of the entity in census publications and related data products.
65 Consolidated city in Connecticut, Florida, Georgia, and Indiana—"city" is appended to the name of the entity in census publications and related data products.
66 Consolidated city—used for some consolidated cities that have unique descriptions or no descriptions, as follows:
Butte-Silver Bow (Montana): (none);
Nashville-Davidson (Tennessee): "Metropolitan Government of Nashville and Davidson County";
No status is appended to the name of the entity in census publications and related data products.
68 Census region—no status is appended to the name of the entity in census publications and related data products.
69 Census division—no status is appended to the name of the entity in census publications and related data products.
71 Consolidated metropolitan statistical area (CMSA)—"CMSA" is appended to the name of the entity in census publications and related data products.

NOTE: See footnotes at the end of this section.

IDENTIFICATION SECTION—Con.

Field name	Data dictionary reference name	Field size	Starting position	Data type

72 Metropolitan statistical area (MSA)—"MSA" is appended to the name of the entity in census publications and related data products.
73 Primary metropolitan statistical area (PMSA)—"PMSA" is appended to the name of the entity in census publications and related data products.
75 Urbanized area (UA)—no status is appended to the name of the entity in census publications and related data products.
77 Alaska Native Regional Corporation—no status is appended to the name of the entity in census publications and related data products.
79 Alaska Native village statistical area—no status is appended to the name of the entity in census publications and related data products.
80 Tribal designated statistical area—American Indian reservation equivalent for non-land-based tribes outside of Oklahoma; "TDSA" is appended to the name of the entity in census publications and related data products.
81 Colony—American Indian reservation; "Colony" is appended to the name of the entity in census publications and related data products.
82 Community—American Indian reservation; "Community" is appended to the name of the entity in census publications and related data products.
83 Joint area—American Indian reservation equivalent; "joint area" is appended to the name of the entity in census publications and related data products.
84 Pueblo—American Indian reservation; "Pueblo" is appended to the name of the entity in census publications and related data products.
85 Rancheria—American Indian reservation; "Rancheria" is appended to the name of the entity in census publications and related data products.
86 Reservation—American Indian reservation; "Reservation" is appended to the name of the entity in census publications and related data products.
87 Reserve—American Indian reservation; "Reserve" is appended to the name of the entity in census publications and related data products.
88 Tribal jurisdiction statistical area—American Indian reservation equivalent representing historic tribal areas in Oklahoma; "TJSA" is appended to the name of the entity in census publications and related data products.
89 Trust lands—American Indian reservation equivalent; no status is appended to the name of the entity in census publications and related data products.
90 (none)—American Indian reservation; no status is appended to the name of the entity in census publications and related data products.

Population Count (100 percent) [18]	POP100	9	291	A/N
Special Flag	SPFLAG	1	300	A/N

Footnotes

1. A unique identifier for each file series. Dress rehearsal files have a "D" in the character following the last character in the file identification code for the equivalent 1990 decennial census file; for example, PL94171D is the identifier for the dress rehearsal file for the P.L. 94-171 data. File identification code for the P.L. 94-171 file is PL94171. File identification codes for summary tape files are STFnn where nn = file number; for example, STF1A is the identification for Summary Tape File 1A. File identification codes for subject summary tape files are SSTFnn where nn = the number of the subject report. File identification codes for special project files are identified by SPmmm where mmm = a three digit special project number. See How to Use This File for further information.

2. Identifies the geographic level for which the data matrices on the summary tape file have been summarized. The summary level sequence chart describes the hierarchical arrangement of the specified geographic areas with other geographic areas, if any. The summary level must be used in combination with the geographic area codes to identify a specific geographic area (for example, summary level 050 and a specific county code must be used together to locate the data for a particular county). See How to Use This File for further information.

3. Indicates an iteration (repetition), for the specified summary level, of the data matrices on the summary tape file for the geographic components listed in the Geographic Component field. See How To Use This File for further information.

IDENTIFICATION SECTION—Con.

4. Indicates an iteration (repetition), for the specified summary level, of the data matrices on the summary tape file for a population or housing characteristic. Only matrices containing a "B" in the prefix have characteristic iterations. See How to Use This File for further information.

5. The logical record is the complete record [identification and set of tables (matrices)] for a geographic entity defined by the summary level, but exclusive of the characteristic iteration. A logical record may have one or more parts (or segments). Each logical record has an assigned sequential integer number within the file. See How to Use This File for further information.

6. Within the logical record, each part is identified uniquely in terms of its sequence. See How to Use This File for further information.

7. This field identifies how many parts (or segments) comprise the entire logical record. See How to Use This File for further information.

8. See Appendix A, Area Classifications, for definition of this field if it is applicable to this file.

9. See the publication, *Geographic Identification Code Scheme*, for codes in this field and related terminology if it is applicable to this file. See Appendix A, Area Classifications, for definition of this field if it is applicable to this file.

10. See the publication, *Geographic Identification Code Scheme*, for FIPS 55 codes in this field and related terminology if it is applicable to this file. See Appendix A, Area Classifications, for definition of this field if it is applicable to this file.

11. Codes in unspecified arrangement for Census Bureau use.

12. Land area measurement in thousandths (.001) of a square kilometer. The accuracy of the area measurement is limited by the inaccuracy inherent in 1) the mapping of the various boundary features in the TIGER File and 2) rounding affecting the last digit in all operations that compute and/or sum the area measurements. Land area includes intermittent water and glaciers, which appear on census maps and in the TIGER File as hydrographic features. An area of .0005 square kilometer is rounded to .001; an area smaller than .0005 is rounded to .000. The decimal point is implied on the file. Square miles can be derived by dividing square kilometers by 2.59. See Appendix A, Area Classifications, for definition of this field if it is applicable to this file.

13. Water area measurement in thousandths (.001) of a square kilometer. Water area is excluded from census blocks by definition, so the water area for a block always will be zero. The accuracy of the area measurement is limited by the inaccuracy inherent in 1) the mapping of the various boundary features in the TIGER File and 2) rounding affecting the last digit in all operations that compute and/or sum the area measurements. Water area excludes intermittent water and glaciers, which are treated as land even though they appear on census maps and in the TIGER File as hydrographic features. An area of .0005 square kilometer is rounded to .001; an area smaller than .0005 is rounded to .000. The decimal point is implied on the file. Square miles can be derived by dividing square kilometers by 2.59. See Appendix A, Area Classifications, for definition of this field if it is applicable to this file.

14. Name of the lowest-level entity represented by the summary level. In addition to the name of the entity, the name field contains the political/statistical area description (PSAD) when appropriate, and sometimes contains the State abbreviation.

    For legal entities, the name is the one reported to the Bureau of the Census in the Boundary and Annexation Survey and by other appropriate sources; for statistical entities, the name is determined by the Office of Management and Budget for metropolitan areas and, for other areas, the name is determined by the Bureau of the Census, usually in cooperation with local officials.

    When the summary level represents only part of the area specified in the name, the name usually will have "(pt.)" appended to the name/code terminology to designate that this entry for the entity represents only a part of the total entity.

IDENTIFICATION SECTION—Con.

15. The total number of housing units enumerated in the specified summary level as determined in the 100-percent processing.

16. Latitude in degrees, to six decimal places, of a point within the geographic area represented by the summary level. The decimal point is implied on the file. The character immediately preceding the first digit of the latitude of an internal point identifies the direction (hemisphere): a plus sign (+) indicates the Northern Hemisphere; a minus sign (-) indicates the Southern Hemisphere. See Appendix A, Area Classifications, for definition of this field if it is applicable to this file.

17. Longitude in degrees, to six decimal places, of a point with the geographic area represented by the summary level. The decimal point is implied on the file. The character immediately preceding the first digit of the longitude of an internal point identifies the direction (hemisphere): a plus sign (+) indicates the Eastern Hemisphere; a minus sign (-) indicates the Western Hemisphere. A point on the 180th meridian is assigned to the Western Hemisphere (-180000000). See Appendix A, Area Classifications, for definition of this field if it is applicable to this file.

18. The total number of persons enumerated in the specified summary level as determined in the 100-percent processing.

TABLE (MATRIX) SECTION

Table (matrix) Number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
P1.	PERSONS(1) [1]			
	Universe: Persons			
	Total	301	301	1
P2.	FAMILIES(1) [1]			
	Universe: Families			
	Total	310	310	1
P3.	HOUSEHOLDS(1) [1]			
	Universe: Households			
	Total	319	319	1
P4.	COLLEGE ENROLLMENT(2) [2]			
	Universe: Persons in households			
	All persons in household enrolled in college	328	328	1
	All or some persons in household not enrolled in college	337	337	2
P5.	FILLER(10) [10]			
	Universe: Households			
	Filler	346	346	1
	Filler	355	355	2
	Filler	364	364	3
	Filler	373	373	4
	Filler	382	382	5
	Filler	391	391	6
	Filler	400	400	7
	Filler	409	409	8
	Filler	418	418	9
	Filler	427	427	10
P6.	FILLER(10) [10]			
	Universe: Persons			
	Filler	436	436	1
	Filler	445	445	2
	Filler	454	454	3
	Filler	463	463	4
	Filler	472	472	5
	Filler	481	481	6
	Filler	490	490	7
	Filler	499	499	8
	Filler	508	508	9
	Filler	517	517	10
P7.	HOUSEHOLD TYPE AND HOUSEHOLD SIZE AND AGE OF HOUSEHOLDER OR SPOUSE(10) [10]			
	Universe: Households			
	Family households:			
	2 persons:			
	Householder and/or spouse 62 years and over	526	526	1
	Other	535	535	2
	3 or 4 persons	544	544	3
	5 or more persons	553	553	4
	Nonfamily households:			
	1 person:			
	Householder 62 years and over	562	562	5
	Householder under 62 years	571	571	6
	2 persons:			
	Householder 62 years and over	580	580	7
	Householder under 62 years	589	589	8
	3 or 4 persons	598	598	9
	5 or more persons	607	607	10

Table (matrix) Number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
P8.	COLLEGE ENROLLMENT(2) BY HOUSEHOLD SIZE(9) BY HOUSEHOLD INCOME IN 1989(22) [396]			
	Universe: Households			
	All persons in household enrolled in college:			
	1 person:			
	Less than $5,000	616	616	1,1,1
	$5,000 to $9,999	625	625	1,1,2
	$10,000 to $12,499	634	634	1,1,3
	$12,500 to $14,999	643	643	1,1,4
	$15,000 to $17,499	652	652	1,1,5
	$17,500 to $19,999	661	661	1,1,6
	$20,000 to $22,499	670	670	1,1,7
	$22,500 to $24,999	679	679	1,1,8
	$25,000 to $27,499	688	688	1,1,9
	$27,500 to $29,999	697	697	1,1,10
	$30,000 to $32,499	706	706	1,1,11
	$32,500 to $37,499	715	715	1,1,12
	$37,500 to $39,999	724	724	1,1,13
	$40,000 to $42,499	733	733	1,1,14
	$42,500 to $44,999	742	742	1,1,15
	$45,000 to $47,499	751	751	1,1,16
	$47,500 to $49,999	760	760	1,1,17
	$50,000 to $54,999	769	769	1,1,18
	$55,000 to $59,999	778	778	1,1,19
	$60,000 to $74,999	787	787	1,1,20
	$75,000 to $99,999	796	796	1,1,21
	$100,000 or more	805	805	1,1,22
	2 persons:			
	(Repeat HOUSEHOLD INCOME IN 1989)	814	814	1,2,1
	3 persons:			
	(Repeat HOUSEHOLD INCOME IN 1989)	1012	1012	1,3,1
	4 persons:			
	(Repeat HOUSEHOLD INCOME IN 1989)	1210	1210	1,4,1
	5 persons:			
	(Repeat HOUSEHOLD INCOME IN 1989)	1408	1408	1,5,1
	6 persons:			
	(Repeat HOUSEHOLD INCOME IN 1989)	1606	1606	1,6,1
	7 persons:			
	(Repeat HOUSEHOLD INCOME IN 1989)	1804	1804	1,7,1
	8 persons:			
	(Repeat HOUSEHOLD INCOME IN 1989)	2002	2002	1,8,1
	9 or more persons:			
	(Repeat HOUSEHOLD INCOME IN 1989)	2200	2200	1,9,1
	All or some persons in household not enrolled in college:			
	(Repeat HOUSEHOLD SIZE By HOUSEHOLD INCOME IN 1989)	2398	2398	2,1,1
P9.	FAMILY SIZE(6) BY FAMILY INCOME IN 1989(22) [132]			
	Universe: Families			
	2 persons:			
	Less than $5,000	4180	4180	1,1
	$5,000 to $9,999	4189	4189	1,2
	$10,000 to $12,499	4198	4198	1,3
	$12,500 to $14,999	4207	4207	1,4
	$15,000 to $17,499	4216	4216	1,5
	$17,500 to $19,999	4225	4225	1,6
	$20,000 to $22,499	4234	4234	1,7
	$22,500 to $24,999	4243	4243	1,8
	$25,000 to $27,499	4252	4252	1,9
	$27,500 to $29,999	4261	4261	1,10
	$30,000 to $32,499	4270	4270	1,11

TABLE (MATRIX) SECTION—Con.

Table (matrix) Number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
P9.	FAMILY SIZE(6) BY FAMILY INCOME IN 1989(22) [132]—Con.			
	$32,500 to $37,499	4279	4279	1,12
	$37,500 to $39,999	4288	4288	1,13
	$40,000 to $42,499	4297	4297	1,14
	$42,500 to $44,999	4306	4306	1,15
	$45,000 to $47,499	4315	4315	1,16
	$47,500 to $49,999	4324	4324	1,17
	$50,000 to $54,999	4333	4333	1,18
	$55,000 to $59,999	4342	4342	1,19
	$60,000 to $74,999	4351	4351	1,20
	$75,000 to $99,999	4360	4360	1,21
	$100,000 or more	4369	4369	1,22
	3 persons:			
	(Repeat FAMILY INCOME IN 1989)	4378	4378	2,1
	4 persons:			
	(Repeat FAMILY INCOME IN 1989)	4576	4576	3,1
	5 persons:			
	(Repeat FAMILY INCOME IN 1989)	4774	4774	4,1
	6 persons:			
	(Repeat FAMILY INCOME IN 1989)	4972	4972	5,1
	7 or more persons:			
	(Repeat FAMILY INCOME IN 1989)	5170	5170	6,1
P10.	COLLEGE ENROLLMENT(2) BY INCOME IN 1989(22) [44]			
	Universe: Unrelated individuals 15 years and over			
	Enrolled in college:			
	Less than $5,000	5368	5368	1,1
	$5,000 to $9,999	5377	5377	1,2
	$10,000 to $12,499	5386	5386	1,3
	$12,500 to $14,999	5395	5395	1,4
	$15,000 to $17,499	5404	5404	1,5
	$17,500 to $19,999	5413	5413	1,6
	$20,000 to $22,499	5422	5422	1,7
	$22,500 to $24,999	5431	5431	1,8
	$25,000 to $27,499	5440	5440	1,9
	$27,500 to $29,999	5449	5449	1,10
	$30,000 to $32,499	5458	5458	1,11
	$32,500 to $37,499	5467	5467	1,12
	$37,500 to $39,999	5476	5476	1,13
	$40,000 to $42,499	5485	5485	1,14
	$42,500 to $44,999	5494	5494	1,15
	$45,000 to $47,499	5503	5503	1,16
	$47,500 to $49,999	5512	5512	1,17
	$50,000 to $54,999	5521	5521	1,18
	$55,000 to $59,999	5530	5530	1,19
	$60,000 to $74,999	5539	5539	1,20
	$75,000 to $99,999	5548	5548	1,21
	$100,000 or more	5557	5557	1,22
	Not enrolled in college:			
	(Repeat INCOME IN 1989)	5566	5566	2,1
P11.	HOUSEHOLD TYPE(3) BY POVERTY STATUS IN 1989(2) [6]			
	Universe: Persons for whom poverty status is determined			
	In family households:			
	Income in 1989 above poverty level	5764	5764	1,1
	Income in 1989 below poverty level	5773	5773	1,2
	In nonfamily households:			
	(Repeat POVERTY STATUS IN 1989)	5782	5782	2,1
	In group quarters:			
	(Repeat POVERTY STATUS IN 1989)	5800	5800	3,1

TABLE (MATRIX) SECTION—Con.

Table (matrix) Number	Table (matrix)	Starting position	Starting position within segment	Table (matrix) coordinates
P12.	POVERTY STATUS IN 1989(2) [2]			
	Universe: Families			
	Income in 1989 above poverty level	5818	5818	1
	Income in 1989 below poverty level	5827	5827	2
P13.	POVERTY STATUS IN 1989(2) BY COLLEGE ENROLLMENT(2) [4]			
	Universe: Unrelated individuals for whom poverty status is determined			
	Income in 1989 above poverty level:			
	Enrolled in college	5836	5836	1,1
	Not enrolled in college	5845	5845	1,2
	Income in 1989 below poverty level:			
	(Repeat COLLEGE ENROLLMENT)	5854	5854	2,1
P14.	EMPLOYMENT STATUS(4) [4]			
	Universe: Persons 16 years and over			
	In labor force:			
	In Armed Forces	5872	5872	1
	Civilian:			
	Employed	5881	5881	2
	Unemployed	5890	5890	3
	Not in labor force	5899	5899	4
	End of Record			

APPENDIX A.
Area Classifications

These definitions are for all geographic entities and concepts that the Census Bureau will include in its standard 1990 census data products for Puerto Rico. Not all entities and concepts are shown in any one 1990 census data product. For a description of geographic areas, see appendix F in this documentation.

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AREA MEASUREMENT

Area measurements provide the size, in square kilometers (also in square miles in printed reports), recorded for each geographic entity for which the Census Bureau tabulates data in general-purpose data products (except crews-of-vessels entities). (Square kilometers may be divided by 2.59 to convert an area measurement to square miles.) Area was calculated from the specific set of boundaries recorded for the entity in the Census Bureau's geographic data base (see "TIGER"). On machine-readable files, area measurements are shown to three decimal places; the decimal point is implied. In printed reports and listings, area measurements are shown to one decimal.

The Census Bureau provides measurements for both land area and total water area for the 1990 census; the water figure for Puerto Rico includes inland, coastal, and territorial water. (For the 1980 census, the Census Bureau provided area measurements for land and inland water.) The Census Bureau will provide measurements for the component types of water for the affected entities in a separate file. "Inland water" consists of any lake, reservoir, pond, or similar body of water that is recorded in the Census Bureau's geographic data base. It also includes any river, creek, canal, stream, or similar feature that is recorded in that data base as a two-dimensional feature (rather than as a single line). The portions of the ocean, related large embayments, and the Caribbean Sea that belong to the United States and its territories are considered to be "coastal" and "territorial" water. Rivers and bays that empty into these bodies of water are treated as "inland water" from the point beyond which they are narrower than one nautical mile across. Identification of land and inland, coastal, and territorial waters is for statistical purposes, and does not necessarily reflect legal definitions thereof.

By definition, census blocks do not include water within their boundaries; therefore, the water area of a block is always zero. Land area measurements may disagree with the information displayed on census maps and in the TIGER File because, for area measurement purposes, features identified as "intermittent water" are reported as land area. For this reason, it may not be possible to derive the land area for an entity by summing the land area of its component census blocks. In addition, the water area measurement reported for some geographic entities includes water that is not included in any lower-level geographic entity. Therefore, because water is contained only in a higher-level geographic entity, summing the water measurements for all the component lower-level geographic

entities will not yield the water area of that higher-level entity. This occurs, for example, where water is associated with a municipio subdivision but is not assigned to any census tract. Crews-of-vessels entities (see "Census Tract and Block Numbering Area" and "Block") do not encompass territory and therefore have no area measurements.

The accuracy of any area measurement figure is limited by the inaccuracy inherent in (1) the location and shape
of the various boundary features in the data base, and (2) rounding affecting the last digit in all operations that compute and/or sum the area measurements.

BLOCK

Census blocks are small areas bounded on all sides by visible features such as streets, roads, and streams and by invisible boundaries such as municipio and barrio limits, property lines, and short, imaginary extensions of streets and roads.

Tabulation blocks, used in census data products, are in most cases the same as collection blocks, used in the census enumeration. In some cases, collection blocks have been "split" into two or more parts required for data tabulations. Tabulation blocks do not cross the boundaries of municipios, municipio subdivisions, places, census tracts or block numbering areas, voting districts, urban or rural areas, or urbanized areas. The 1990 census is the first for which all of Puerto Rico is block-numbered.

Blocks are numbered uniquely within each census tract or BNA. A block is identified by a three-digit number, sometimes with a single alphabetical suffix. Block numbers with suffixes generally represent collection blocks that were "split" in order to identify separate geographic entities that divide the original block. For example, when a barrio boundary runs through data collection block 101, the data for the portion inside one barrio is tabulated in block 101A and the portion in the other barrio, in block 101B. A block number with the suffix "Z" represents a "crews-of-vessels" entity for which the Census Bureau tabulates data, but that does not represent a true geographic area; such a block is shown on census maps associated with an anchor symbol and a census tract or block numbering area with a .99 suffix. Some block group records may not have any block numbers associated with them; this occurs where the entire area of the block group consists only of water.

BLOCK GROUP (BG)

Geographic Block Group

A geographic block group (BG) is a cluster of blocks having the same first digit of their identifying numbers within a census tract or block numbering area (BNA). For example, BG 3 within a census tract or BNA includes all blocks numbered between 301 and 397. In most cases, the numbering involves substantially fewer than 97 blocks. Geographic BG's never cross census tract or BNA boundaries, but may cross the boundaries of municipio subdivisions, places, urbanized areas, and voting districts. BG's generally contain between 250 and 550 housing units, with the ideal size being 400 housing units. Local officials delineated BG's for the 1990 census using Census Bureau guidelines.

Tabulation Block Group

In the data tabulations, a geographic BG may be split to present data for every unique combination of municipio subdivision, place, urbanized area, voting district, and urban/rural shown in the data product; for example, if
BG 3 is located in two barrios, there will be separate tabulated records for each portion of BG 3. BG's are used in tabulating decennial census data throughout Puerto Rico for the 1990 census, but only in block-numbered areas for the 1980 census. For purposes of data presentation, BG's are a substitute for the enumeration districts (ED's) used for reporting data in many parts of Puerto Rico for the 1980 census and throughout Puerto Rico for pre-1980 censuses.

BOUNDARY CHANGES

The boundaries of some places changed from those reported for the 1980 census. The historical counts shown for places are not updated for such changes, and thus reflect the population and housing units in the area as delineated at each census. Boundary changes are not reported for statistical areas.

CENSUS REGION AND CENSUS DIVISION

For statistical purposes, the United States is divided into four census regions, which are further subdivided into nine divisions. Puerto Rico is not assigned to any region or division.

CENSUS TRACT AND BLOCK NUMBERING AREA

Block Numbering Area (BNA)

Block numbering areas (BNA's) are small statistical subdivisions of a municipio for grouping and numbering blocks in municipios that do not have census tracts. The Puerto Rico Planning Board and the Census Bureau delineated BNA's for the 1990 census, using guidelines similar to those for the delineation of census tracts. BNA's do not cross municipio boundaries.

BNA's are identified by a four-digit basic number and may have a two-digit suffix; for example, 9901.07. The decimal point separating the four-digit basic BNA number from the two-digit suffix is shown in printed reports, in microfiche, and on census maps; in machine-readable files, the decimal point is implied. Many BNA's do not have a suffix; in such cases, the suffix field is left blank in all data products. BNA numbers range from 9501 through 9989.99, and are unique within a municipio (numbers in the range of 0001 through 9499.99 denote a census tract). The suffix .99 identifies a BNA that was populated entirely by persons aboard one or more civilian or military ships. A "crews-of-vessels" BNA appears on census maps only as an anchor symbol with its BNA number (and block numbers on maps showing block numbers); the BNA relates to the ships associated with the onshore BNA's having the same four-digit basic number. Suffixes in the range .80 through .98 identify BNA's that either were revised or were created during the 1990 census data collection activities. Some of these revisions produced BNA's that have extremely small land area and may have little or no population or housing. For data analysis, such a BNA can be summarized with an adjacent BNA.

Census Tract

Census tracts are small, relatively permanent statistical subdivisions of a municipio. Census tracts in Puerto Rico are delineated for all metropolitan areas (MA's) and other highly populated municipios by the Puerto Rico Planning Board, in consultation with municipio officials and following Census Bureau guidelines. Census tracts usually have between 2,500 and 8,000 persons and, when first delineated, are designed to be homogeneous with respect to population characteristics, economic status, and living conditions. Census tracts do not cross municipio boundaries. The spatial size of census tracts varies widely depending on the density of settlement. Census tract boundaries are delineated with the intention of being maintained over a long time so that statistical comparisons can be made from census to census. However, physical changes in street patterns caused by highway construction, new development, etc., may require occasional revisions; census tracts occasionally are split due to large population growth, or combined as a result of substantial population decline. Census tracts are referred to as "tracts" in all 1990 data products.

Census tracts are identified by a four-digit basic number and may have a two-digit suffix; for example, 6059.02. The decimal point separating the four-digit basic number from the two-digit suffix is shown in printed reports, in microfiche, and on census maps; in machine-readable files, the decimal point is implied. Many census tracts do not have a suffix; in such cases, the suffix field is left blank in all data products. Leading zeros in a census tract number (for example, 002502) are shown only on machine-readable files.

Census tract numbers range from 0001 through 9499.99 and are unique within a municipio (numbers in the range of 9501 through 9989.99 denote a block numbering area). The suffix .99 identifies a census tract that was populated entirely by persons aboard one or more civilian or military ships. A "crews-of-vessels" census tract appears on census maps only as an anchor symbol with its census tract number (and block numbers on maps showing block numbers). These census tracts relate to the ships associated with the onshore census tract having the same four-digit basic number. Suffixes in the range .80 through .98 usually identify census tracts that either were revised or were created during the 1990 census data collection activities. Some of these revisions may have resulted in census tracts that have extremely small land area and may have little or no population or housing. For data analysis, such a census tract can be summarized with an adjacent census tract.

CONGRESSIONAL DISTRICT

Puerto Rico is represented in the U.S. House of Representatives by a nonvoting delegate, referred to as a "resident commissioner."

GEOGRAPHIC CODE

Geographic codes are shown primarily on machine-readable data products, such as computer tape and compact disc-read only memory (CD-ROM), but also appear on other products such as microfiche; they also are shown on some census maps. Codes are identified as "census codes" only if there also is a Federal Information Processing Standards (FIPS) code for the same geographic entity. A code that is not identified as either "census" or "FIPS" usually is a census code for which there is no FIPS equivalent or for which the Census Bureau does not use the FIPS code. The exceptions, which use only the FIPS code in census products, are municipio, congressional district, and metropolitan area (that is, metropolitan statistical area, consolidated metropolitan statistical area, and primary metropolitan statistical area).

Census Code

Census codes are assigned for a variety of geographic entities, including Puerto Rico, municipio subdivision, place, urbanized area, and voting district. The structure, format, and meaning of census codes appear in the 1990 census *Geographic Identification Code Scheme* and in the data dictionary portion of the technical documentation for summary tape files and CD-ROM's.

Federal Information Processing Standards (FIPS) Code

Federal Information Processing Standards (FIPS) codes are assigned for a variety of geographic entities,

including congressional district, county (including statistically equivalent entities such as municipio), barrio-pueblo and barrio, metropolitan area, place, and State (including statistically equivalent entities such as Puerto Rico). The structure, format, and meaning of FIPS codes used in the census are shown in the 1990 census *Geographic Identification Code Scheme* and in the data dictionary portion of the technical documentation for summary tape files and CD-ROM's.

The objective of the FIPS codes is to improve the use of data resources of the Federal Government and avoid unnecessary duplication and incompatibilities in the collection, processing, and dissemination of data. More information about the FIPS and FIPS code documentation is available from the National Technical Information Service, Springfield, VA 22161.

United States Postal Service (USPS) Code

The United States Postal Service (USPS) code for Puerto Rico is used in all 1990 census data products. The code is a two-character alphabetic abbreviation: PR. The code is the same as the FIPS two-character alphabetic abbreviation.

GEOGRAPHIC PRESENTATION

Hierarchical Presentation

A hierarchical geographic presentation shows the geographic entities in a superior/subordinate structure in census products. This structure is derived from the legal, administrative, or areal relationships of the entities. The hierarchical structure is depicted in report tables by means of indentation, and is explained for machine-readable media in the discussion of file structure in the geographic coverage portion of the abstract in the technical documentation. An example of hierarchical presentation for Puerto Rico is the "standard census geographic hierarchy": block, within block group, within census tract or block numbering area, within place, within municipio subdivision, within municipio, within Puerto Rico. Graphically, this is shown as:

Puerto Rico
  Municipio
    Municipio subdivision
      Place (or part)
        Census tract/block numbering area (or part)
          Block group (or part)
            Block

Inventory Presentation

An inventory presentation of geographic entities is one in which all entities of the same type are shown in alphabetical or code sequence, without reference to their hierarchical relationships. Generally, an inventory presentation shows totals for entities that may be split in a hierarchical presentation, such as place, census tract/block numbering area, or block group. An example of a series of inventory presentations is: Puerto Rico, followed by all the municipios, followed by all the places in Puerto Rico. Graphically, this is shown as:

Puerto Rico

Municipio "A"
Municipio "B"
Municipio "C"

Place "X"
Place "Y"
Place "Z"

HISTORICAL COUNTS

Historical counts for total population and total housing units are shown in the 1990 CPH-2, *Population and Housing Unit Counts* report series. As in past censuses, the general rule for presenting historical data is to show historical counts only for single, continually existing entities. Stated another way, if an entity existed for both the current and preceding censuses, the tables show counts for the preceding censuses. Included in this category are entities of the same type (municipio, municipio subdivision, place) even if they had changed their names. The historical counts shown are for each entity as it was bounded at each census.

In cases where an entity was formed since a preceding census, such as a new place, the symbol three dots "..." is shown for earlier censuses. The three-dot symbol also is shown for those parts of a place that have extended into an additional municipio or municipio subdivision since the preceding census.

In some cases, population and housing unit counts for individual areas were revised since publication of the 1980 reports (indicated by the prefix "r"). In a number of tables of 1990 CPH-2, *Population and Housing Unit Counts*, 1980 counts are shown for aggregations of individual areas, such as the number, population, and housing unit counts of places in size groups, or urban and rural distributions. Revisions of population and housing unit counts for individual areas were not applied to the various aggregations. Therefore, it may not be possible to determine the individual areas in a given aggregation using the historical counts; conversely, the sum of the counts shown for individual areas may not agree with the aggregation.

INTERNAL POINT

An internal point is a set of geographic coordinates (latitude and longitude) that is located within a specified geographic entity. A single point is identified for each entity; for many entities, this point may approximate the geographic center of that entity. If the shape of the

entity caused this point to be located outside the boundaries of the entity, it is relocated from the center so that it is within the entity. By definition, the internal point for a block cannot fall in a body of water. On machine-readable products, internal points are shown to six decimal places; the decimal point is implied.

METROPOLITAN AREA

The general concept of a metropolitan area (MA) is one of a large population nucleus, together with adjacent communities that have a high degree of economic and social integration with that nucleus. Some MA's are defined around two or more nuclei.

The MA classification is a statistical standard, developed for use by Federal agencies in the production, analysis, and publication of data on MA's. The MA's are designated and defined by the Federal Office of Management and Budget, following a set of official published standards. These standards were developed by the interagency Federal Executive Committee on Metropolitan Areas, with the aim of producing definitions that are as consistent as possible for all MA's throughout the United States and Puerto Rico.

An MA in Puerto Rico must contain either a place with a minimum population of 50,000 or a Census Bureau-defined urbanized area and a total MA population of at least 100,000. An MA comprises one or more municipios that have close economic and social relationships. An outlying municipio must have a specified level of commuting to the central municipio(s) and also must meet certain standards regarding metropolitan character, such as population density, urban population, and population growth, to be included in an MA.

The territory, population, and housing units in MA's are referred to as "metropolitan." The metropolitan category is subdivided into "inside central city" and "outside central city." The territory, population, and housing units located outside MA's are referred to as "nonmetropolitan." The metropolitan and nonmetropolitan classification cuts across the other hierarchies; for example, there is generally both urban and rural territory within both metropolitan and nonmetropolitan areas.

To meet the needs of various users, the standards provide for a flexible structure of metropolitan definitions that classify an MA either as a metropolitan statistical area (MSA), or as a consolidated metropolitan statistical area (CMSA) that is divided into primary metropolitan statistical areas (PMSA's). Documentation of the MA standards and how they are applied is available from the Secretary, Federal Executive Committee on Metropolitan Areas, Population Division, U.S. Bureau of the Census, Washington, DC 20233.

Central City

In each MSA and CMSA in Puerto Rico, the largest place and, in some cases, additional places are designated as "central cities" under the official standards. The largest central city and, in some cases, up to two additional central cities may be included in the title of the MA; there also may be central cities that are not included in an MA title.

Consolidated and Primary Metropolitan Statistical Area (CMSA and PMSA)

If an area that qualifies as an MA has more than one million persons, primary metropolitan statistical areas (PMSA's) may be defined within it. In Puerto Rico, PMSA's consist of a large urbanized municipio or cluster of municipios that demonstrates very strong internal economic and social links, in addition to close ties to other portions of the larger area. When PMSA's are established, the larger area of which they are component parts is designated a consolidated metropolitan statistical area (CMSA).

Metropolitan Statistical Area (MSA)

Metropolitan statistical areas (MSA's) are relatively freestanding MA's and are not closely associated with other MA's.

Metropolitan Area Title and Code

The title of an MSA contains the name of its largest central city and up to two additional place names, provided that the additional places meet specified levels of population, employment, and commuting.

The title of a PMSA may contain up to three place names, as determined above, or up to three municipio names, sequenced in order of population. A CMSA title also may include up to three names, the first of which generally is the most populous central city in the area. The second name may be the first place or municipio name in the most populous remaining PMSA; the third name may be the first place or municipio name in the next most populous PMSA. A regional designation may be substituted for the second and/or third names in a CMSA title if such a designation is supported by local opinion and is deemed to be unambiguous and suitable by the Office of Management and Budget.

The titles for all MA's in Puerto Rico also contain the name of the Commonwealth. Each MA is assigned a four-digit FIPS code in alphabetical order of all MA's. If the fourth digit of the code is a "2," it identifies a CMSA. Additionally, there is a separate set of two-digit codes for CMSA's, also assigned alphabetically.

MUNICIPIO

The primary political divisions of Puerto Rico are termed "municipios." The Census Bureau, for statistical purposes, treats a municipio as the equivalent of a county in the United States. Each municipio is assigned a unique three-digit FIPS code in alphabetical order within Puerto Rico.

MUNICIPIO SUBDIVISION

The Census Bureau recognizes barrios-pueblos and barrios as the primary legal subdivisions (minor civil divisions, or MCD's) of municipios. The barrios-pueblos replace the "pueblos" reported in previous decennial censuses. In agreement with the Puerto Rico government, the Census Bureau no longer includes ciudades in its data tabulations.

Each municipio subdivision is assigned a three-digit census code in alphabetical order within municipio and a five-digit FIPS code in alphabetical order within Puerto Rico.

Subbarrio

Subbarrios in 23 municipios are legal subdivisions of the barrios-pueblos and some barrios. The Census Bureau presents the same types of 1990 census data for these "sub-MCD's" as it does for the barrios-pueblos and barrios. Each subbarrio is assigned a two-digit census code in alphabetical order within municipio and a five-digit FIPS code in alphabetical order within Puerto Rico.

PLACE

For the reporting of decennial census data, places in Puerto Rico consist of zonas urbanas and comunidades. Each place is assigned a four-digit census code and a five-digit FIPS code that are unique within Puerto Rico. Both the census and FIPS codes are assigned based on alphabetical order within Puerto Rico.

Because Puerto Rico does not have incorporated places—legally defined governmental units that perform services, raise taxes, and have elected officials specifically for closely settled communities—the Census Bureau recognizes only places delineated for statistical purposes. These census designated places (CDP's) are delineated by the Puerto Rico Planning Board, following Census Bureau guidelines, for the decennial census as the statistical counterparts of incorporated places in the States. Their boundaries, which usually coincide with visible features, have no legal status. CDP boundaries may change with changes in the settlement pattern; a CDP with the same name as in previous censuses does not necessarily have the same boundaries.

The Census Bureau provides data for two types of CDP's in Puerto Rico: (1) zonas urbanas, representing the governmental center of each municipio; there is no minimum population requirement for a zona urbana, and (2) comunidades (called "aldeas" in previous censuses), representing other settlements with a 1990 census population of at least 1,000. Comunidades qualified on the basis of the population counts prepared for the 1990 Postcensus Local Review Program. Because these counts were subject to change, a few may have final population counts lower than 1,000.

POPULATION OR HOUSING UNIT DENSITY

Population or housing unit density is computed by dividing the total population or housing units of a geographic unit (for example, Puerto Rico, municipio, place) by its land area measured in square kilometers or square miles. Density is expressed as both "persons (or housing units) per square kilometer" and "persons (or housing units) per square mile" of land area in 1990 census printed reports.

STATE

States are the primary governmental divisions of the United States. The District of Columbia is treated as a statistical equivalent of a State for census purposes. The Census Bureau treats the Outlying Areas as the statistical equivalents of States for presenting the 1990 census data. The Outlying Areas include American Samoa, Guam, the Commonwealth of the Northern Mariana Islands (Northern Mariana Islands), the Republic of Palau (Palau), Puerto Rico, and the Virgin Islands of the United States (Virgin Islands).

Each State and equivalent entity is assigned a two-digit numeric Federal Information Processing Standards (FIPS) code in alphabetical order by State name, followed by the Outlying Area names. Each State and equivalent entity also is assigned a two-digit census code. The first digit of the code is the code for the respective division except for Puerto Rico, the Virgin Islands, and the Outlying Areas of the Pacific, which are assigned "0" as the first digit because they are not part of any division. Each State and equivalent area also is assigned the two-letter FIPS/ United States Postal Service (USPS) code.

TIGER

TIGER is an acronym for the new digital (computer-readable) geographic data base that automates the mapping and related geographic activities required to support the Census Bureau's census and survey programs. The Census Bureau developed the Topologically Integrated Geographic Encoding and Referencing (TIGER) System to automate the geographic support processes needed to meet the major geographic needs of the 1990 census: producing the cartographic products to support data collection and map publication, providing the geographic structure for tabulation and publication of the collected data, assigning residential and employer addresses to their geographic location and relating those locations to the Census Bureau's geographic units, and so forth. The content of the TIGER data base is made available to the public through a variety of "TIGER Extract" files that may be obtained from the Data User Services Division, U.S. Bureau of the Census, Washington, DC 20233.

UNITED STATES

The United States comprises the 50 States and the District of Columbia. In addition, the Census Bureau treats the Outlying Areas (see "State") as statistical equivalents of States for the 1990 census.

URBAN AND RURAL

The Census Bureau defines "urban" for the 1990 census as comprising all territory, population, and housing units in urbanized areas and in places of 2,500 or more persons outside urbanized areas. More specifically, "urban" consists of territory, persons, and housing units in:

1. Places of 2,500 or more persons.
2. All other territory included in urbanized areas.

Territory, population, and housing units not classified as urban constitute "rural." In the 100-percent data products, "rural" is divided into "places of less than 2,500" and "not in places." The "not in places" category comprises "rural" outside zonas urbanas and comunidades. In many data products, the term "other rural" is used; "other rural" is a residual category specific to the classification of the rural in each data product.

In the sample data products, rural population and housing units are subdivided into "rural farm" and "rural nonfarm." "Rural farm" comprises all rural households and housing units on farms (places from which $1,000 or more of agricultural products were sold in 1989); "rural nonfarm" comprises the remaining rural.

The urban and rural classification cuts across the other hierarchies; for example, there generally is both urban and rural territory within both metropolitan and nonmetropolitan areas.

In censuses prior to 1950, "urban" comprised all territory, persons, and housing units in places of 2,500 or more persons. The definition of urban that restricted itself to places having 2,500 or more persons excluded many large, densely settled areas merely because they were not places. To improve its measure of urban territory, population, and housing units, the Census Bureau adopted the concept of the urbanized area.

URBANIZED AREA

The Census Bureau delineates urbanized areas (UA's) to provide a better separation of urban and rural territory, population, and housing in the vicinity of large places. A UA comprises one or more places ("central place") and the adjacent densely settled surrounding territory ("urban fringe") that together have a minimum of 50,000 persons. The urban fringe generally consists of contiguous territory having a density of at least 1,000 persons per square mile. The urban fringe also includes outlying territory of such density if it is connected to the core of the contiguous area by road and is within 1 1/2 road miles of that core, or within 5 road miles of the core but separated by water or other undevelopable territory. Other territory with a population density of fewer than 1,000 people per square mile is included in the urban fringe if it eliminates an enclave or closes an indentation in the boundary of the urbanized area. The population density is determined by (1) outside of a place, one or more contiguous census blocks with a population density of at least 1,000 persons per square mile or (2) inclusion of a place containing census blocks that have at least 50 percent of the population of the place and a density of at least 1,000 persons per square mile. The complete criteria are available from the Chief, Geography Division, U.S. Bureau of the Census, Washington, DC 20233.

Urbanized Area Central Place

One or more central places function as the dominant centers of each UA. The identification of a UA central place permits the comparison of this dominant center with the remaining territory in the UA. There is no limit on the number of central places, and not all central places are necessarily included in the UA title. UA central places include:

1. Each place entirely within the UA that is a central city of a metropolitan area (MA).
2. If the UA does not contain an MA central city or is located outside of an MA, the central place(s) is determined by population size.

Urbanized Area Title and Code

The title of a UA identifies those places that are most important within the UA; it links the UA to the encompassing MA, where appropriate. If a single MA includes most of the UA, the title and code of the UA generally are the same as the title and code of the MA. If the UA is not mostly included in a single MA, if it does not include any place that is a central city of the encompassing MA, or if it is not located in an MA, the Census Bureau uses the population size of the included places to determine the UA title. The name of Puerto Rico is included in the title of each UA in the Commonwealth.

The numeric code used to identify each UA is the same as the code for the mostly encompassing MA (including CMSA and PMSA). If MA title cities represent multiple UA's, or the UA title city does not correspond to the first name of an MA title, the Census Bureau assigns a code based on the alphabetical sequence of the UA title in relationship to the other UA and MA titles.

VOTING DISTRICT (VTD)

A voting district (VTD) is any of a variety of types of areas (for example, election districts, precincts, legislative districts) established by the Puerto Rico government for purposes of elections. For census purposes, the Puerto Rico Planning Board outlined the boundaries of VTD's around groups of whole census blocks on census maps. The entities identified as VTD's are not necessarily those legally or currently established. Also, to meet the "whole block" criterion, it may have been necessary to adjust VTD boundaries to nearby block boundaries. Therefore, the VTD's shown on the 1990 census tapes, listings, and maps may not represent the actual VTD's in effect at the time of the census.

Each VTD is assigned a four-character alphanumeric code that is unique within each municipio. The code "ZZZZ" is assigned to nonparticipating areas; the Census Bureau reports data for areas coded "ZZZZ."

APPENDIX B.
Definitions of Subject Characteristics

These definitions are for all subject characteristics that the Census Bureau will include in its standard 1990 census data products. However, not all concepts may be applicable for this file. For more information about the various 1990 census data products, see appendix F in this documentation.

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POPULATION CHARACTERISTICS

ABILITY TO READ AND WRITE

Data on ability to read and write (literacy) were derived from answers to questionnaire item 14, which was asked of a sample of persons 5 years old and over. The data are shown in selected data products for persons 10 years old and over since persons younger than 10 years old have not yet completed the fifth grade and are more likely to be considered not literate only because of the limited exposure to schooling.

The question on ability to read and write was not limited to any particular language. The category, "able to read and write," included respondents who were able to read and write in Spanish, English, or any other langauage. The enumerators were instructed that a literate person must have the ability to read a letter from someone else and also write a letter. Persons who could only read and those who could write only their own names were classified as unable to read and write. Persons who reported their level of educational attainment to be high school graduate or higher were considered literate.

Comparability—This question has been in each decennial census since the United States government started conducting the census in Puerto Rico.

ABILITY TO SPEAK SPANISH AND ENGLISH

The data on ability to speak Spanish were derived from answers to questionnaire item 15a. Ability to speak English was reported in questionnaire item 15b as one of three categories: "Yes, easily," "Yes, with difficulty," or "No." These questions were asked on a sample basis.

The questions on language usage were intended to determine the extent to which Spanish and English are spoken in Puerto Rico. From these responses, it is possible to determine how many persons cannot speak Spanish and how many persons have difficulty speaking English or cannot speak English at all. The questions were not intended to determine which language was the person's main language.

Comparability—While the question on ability to speak English has been included on the census questionnaires for Puerto Rico since 1910, the question on ability to speak Spanish was added to the questionnaire for the first time in 1980.

AGE

The data on age were derived from answers to questionnaire item 4, which was asked of all persons. The age classification is based on the age of the person in completed years as of April 1, 1990. The age response in question 4a was normally used to represent a person's age. However, when the age response was unacceptable or unavailable, a person's age was derived from an acceptable year of birth response in question 4b.

Data on age are used to determine the applicability of other questions for a person and to classify other characteristics in census tabulations. Age data are needed to interpret most social and economic characteristics used to plan and examine many programs and policies. Therefore, age is tabulated by single years of age and by many different groupings, such as 5-year age groups.

Some tabulations are shown by the age of the householder. These data were derived from the age responses for each householder. (For more information on householder, see the discussion under "Household Type and Relationship.")

Median Age—This measure divides the age distribution into two equal parts: one-half of the cases falling below the median value and one-half above the value. Generally, median age is computed on the basis of more detailed age intervals than are shown in some census publications; thus, a median based on a less detailed distribution may differ slightly from a corresponding median for the same population based on a more detailed distribution. (For more information on medians, see the discussion under "Derived Measures.")

Limitation of the Data—Counts in 1970 and 1980 for persons 100 years old and over were substantially overstated. Improvements were made in the questionnaire design, in the allocation procedures, and to the respondent instruction guide to attempt to minimize this problem in 1990.

Review of detailed 1990 information indicated that respondents tended to provide their age as of the date of completion of the questionnaire, not their age as of April 1, 1990. In addition, there may have been a tendency for respondents to round their age up if they were close to having a birthday. It is likely that approximately 10 percent of persons in most age groups are actually 1 year younger. For most single years of age, the misstatements are largely offsetting. The problem is most pronounced atage 0 because persons lost to age 1 may not have been fully offset by the inclusion of babies born after April 1, 1990 and because there may have been more rounding up to age 1 to avoid reporting age as 0 years. (Age in completed months was not collected for infants under age 1.)

The reporting of age 1 year older than age on April 1, 1990 is likely to have been greater in areas where the census data were collected later in 1990. The magnitude of this problem was much less in the three previous censuses where age was typically derived from respondent data on year of birth and quarter of birth. (For more information on the design of the age question, see the section below that discusses "Comparability.")

Comparability—Age data have been collected in Puerto Rico in every census. For the first time since 1960, the 1990 data are not available by quarter year of age. This change was made so that coded information could be obtained for both age and year of birth. In each census since 1950, the age of a person was assigned when it was not reported. Since 1960, assignment of unknown age has been performed by a general procedure described as "imputation." The specific procedures for imputing age have been different in each census. (For more information on imputation, see Appendix C, Accuracy of the Data.)

CITIZENSHIP

The data on citizenship were derived from answers to questionnaire item 7, which was asked of a sample of persons.

Citizen—Persons who indicated that they were native-born and foreign-born persons who indicated that they have become naturalized. (For more information on native and foreign born, see the discussion under "Place of Birth.")

There are four categories of citizenship: (1) born in Puerto Rico, (2) United States, Guam, the U.S. Virgin Islands, or the Northern Mariana Islands, (3) born abroad of American parents, and (4) U.S. citizen by naturalization.

Naturalized Citizen—Foreign-born persons who had completed the naturalization process at the time of the census and upon whom the rights of citizenship had been conferred.

Not a Citizen—Foreign-born persons who were not citizens, including persons who had begun but not completed the naturalization process at the time of the census.

Limitation of the Data—Evaluation studies completed after previous censuses indicated that some persons may have reported themselves as citizens although they had not yet attained the status.

Comparability—Similar questions on citizenship were asked in the censuses of 1950, 1970, and 1980. The 1980 question was asked of a sample of the foreign-born population. In 1990, both native and foreign-born persons who were enumerated using the long-form questionnaire were asked to respond to the citizenship question.

EDUCATIONAL ATTAINMENT

Data on educational attainment were derived from answers to questionnaire item 10, which was asked of a sample of persons. Data are tabulated as attainment for persons 15 years old and over. Persons are classified according to the highest grade of school completed or the highest degree received. The question included instructions to report the previous grade attended or the highest degree received for persons currently enrolled in school. The question included response categories which allowed persons to report completing the 12th grade without receiving a high school diploma, and which instructed respondents to report as "high school graduate(s)"—persons who received either a high school diploma or the equivalent, for example, passed the Test of General Educational Development (G.E.D.), and did not attend college. (On the Military Census Report questionnaire, the lowest response category was "Less than 9th grade.")

Enumerators were instructed that schooling completed in foreign or ungraded school systems should be reported as the equivalent level of schooling in the regular American system; that vocational certificates or diplomas from vocational, trade, or business schools or colleges were not to be reported unless they were college level degrees; and that honorary degrees were not to be reported. The instructions gave "medicine, dentistry, chiropractic, optometry, osteopathic medicine, pharmacy, podiatry, veterinary medicine, law, and theology" as examples of professional school degrees, and specifically excluded "barber school, cosmetology, or other training for a specific trade" from the professional school category. The order in which they were listed suggested that doctorate degrees were "higher" than professional school degrees, which were "higher" than master's degrees.

Persons who did not report educational attainment were assigned the attainment of a person of the same age and sex who resided in the same or a nearby area.

High School Graduate or Higher—Includes persons whose highest degree was a high school diploma or its equivalent, persons who attended college or professional school, and persons who received a college, university, or professional degree. Persons who reported completing the 12th grade but not receiving a diploma are not included.

Not Enrolled, Not High School Graduate—Includes persons of compulsory school attendance age or above who were not enrolled in school and were not high school graduates; these persons may be taken to be "high school dropouts." There is no restriction on when they "dropped out" of school, and they may have never attended high school.

In prior censuses, "Median school years completed" was used as a summary measure of educational attainment. In 1990, the median can only be calculated for groups of which less than half the members have attended college. "Percent high school graduate or higher" and "Percent bachelor's degree or higher" are summary measures which offer quite readily interpretable measures of differences between population subgroups. To make comparisons over time, "Percent high school graduate or higher" can be calculated and "Percent bachelor's degree or higher" can be approximated with data from previous censuses.

Comparability—In censuses prior to 1950, the only educational attainment question asked about basic literacy. The same literacy question was asked in 1990. Questions on educational attainment, in terms of years of school completed, were included from 1950 to 1980. In these censuses, a two-part question asking highest grade of school attended and whether that grade was finished was used to construct highest grade or year of school completed. For persons who have not attended college, the response categories in the 1990 educational attainment question should produce data which are comparable to data on highest grade completed from earlier censuses.

The response categories for persons who have attended college were modified from earlier censuses because there was some ambiguity in interpreting responses in terms of the number of years of college completed. For instance, it was not clear whether "completed the fourth year of college," "completed the senior year of college," and "college graduate" were synonymous. Research conducted shortly before the census suggests that these terms were more distinct in 1990 than in earlier decades, and this change may have threatened the ability to estimate the number of "college graduates" from the number of persons reported as having completed the fourth or a higher year of college. It was even more difficult to make inferences about post-baccalaureate degrees and "Associate" degrees from highest year of college completed. Thus, comparisons of post-secondary educational attainment in this and earlier censuses should be made with great caution.

In the 1960 and subsequent censuses, persons for whom educational attainment was not reported were assigned the same attainment level as a similar person whose residence was in the same or a nearby area. In the 1950 census, persons for whom educational attainment was not reported were not allocated.

EMPLOYMENT STATUS

The data on employment status were derived from answers to questionnaire items 22, 26, and 27, which were asked of a sample of persons. The series of questions on employment status was asked of all persons 15 years old and over and was designed to identify, in this sequence: (1) persons who worked at any time during the reference week; (2) persons who did not work during the reference week but who had jobs or businesses from which they were temporarily absent (excluding layoff); (3) persons on layoff; and (4) persons who did not work during the reference week, but who were looking for work during the last four weeks and were available for work during the reference week. (For more information, see the discussion under "Reference Week.")

The employment status data shown in this and other 1990 census tabulations relate to persons 16 years old and over. Some tabulations showing employment status, however, include persons 15 years old. By definition, these persons are classified as "Not in Labor Force." In the 1940, 1950, and 1960 censuses, employment status data were presented for persons 14 years old and over. The change in the universe was made in 1970 to agree with the official measurement of the labor force as revised in January 1967 by the U.S. Department of Labor. The 1970 census was the last to show employment data for persons 14 and 15 years old.

Employed—All civilians 16 years old and over who were either (1) "at work"—those who did any work at all during the reference week as paid employees, worked in their own business or profession, worked on their own farm, or worked 15 hours or more as unpaid workers on a family farm or in a family business; or (2) were "with a job but not at work"—those who did not work during the reference week but had jobs or businesses from which they were temporarily absent due to illness, bad weather, industrial dispute, vacation, or other personal reasons. Excluded from the employed are persons whose only activity consisted of work around the house or unpaid volunteer work for religious, charitable, and similar organizations; also excluded are persons on active duty in the U.S. Armed Forces.

Unemployed—All civilians 16 years old and over are classified as unemployed if they (1) were neither "at work" nor "with a job but not at work" during the reference week, and (2) were looking for work during the last 4 weeks, and (3) were available to accept a job. Also included as unemployed are civilians who did not work at all during the reference week and were waiting to be called back to a job from which they had been laid off. Examples of job seeking activities are:

- Registering at a public or private employment office
- Meeting with prospective employers
- Investigating possibilities for starting a professional practice or opening a business
- Placing or answering advertisements
- Writing letters of application
- Being on a union or professional register

Civilian Labor Force—Consists of persons classified as employed or unemployed in accordance with the criteria described above.

Experienced Unemployed—These are unemployed persons who have worked at any time in the past.

Experienced Civilian Labor Force—Consists of the employed and the experienced unemployed.

Labor Force—All persons classified in the civilian labor force plus members of the U.S. Armed Forces (persons on active duty with the U.S. Army, Air Force, Navy, Marine Corps, or Coast Guard).

Not in Labor Force—All persons 16 years old and over who are not classified as members of the labor force. This category consists mainly of students, housewives, retired workers, seasonal workers enumerated in an *off* season who were not looking for work, institutionalized persons, and persons doing only incidental unpaid family work (less than 15 hours during the reference week).

Worker—This term appears in connection with several subjects: journey-to-work items, class of worker, weeks worked in 1989, and number of workers in family in 1989. Its meaning varies and, therefore, should be determined in each case by referring to the definition of the subject in which it appears.

Actual Hours Worked Last Week—All persons who reported working during the reference week were asked to report in questionnaire item 22b the number of hours that they worked. The statistics on hours worked pertain to the number of hours actually worked at all jobs, and do not necessarily reflect the number of hours typically or usually worked or the scheduled number of hours. The concept of "actual hours" differs from that of "usual hours" described below. The number of persons who worked only a small number of hours is probably understated since such persons sometimes consider themselves as not working. Respondents were asked to include overtime or extra hours worked, but to exclude lunch hours, sick leave, and vacation leave.

Limitation of the Data—The census may understate the number of employed persons because persons who have irregular, casual, or unstructured jobs sometimes report themselves as not working. The number of employed persons "at work" is probably overstated in the census (and conversely, the number of employed "with a job, but not at work" is understated) since some persons on vacation or sick leave erroneously reported themselves as working. This problem has no effect on the total number of employed persons. The reference week for the employment data is not the same for all persons. Since persons can change their employment status from one week to another, the lack of a uniform reference week may mean that the employment data do not reflect the reality of the employment situation of any given week. (For more information, see the discussion under "Reference Week.")

Comparability—The questionnaire items and employment status concepts for the 1990 census are essentially the same as those used in the 1980 and 1970 censuses. However, these concepts differ in many respects from those associated with the 1950 and 1960 censuses.

Since employment data from the census are obtained from respondents in households, they differ from statistics based on reports from individual business establishments, farm enterprises, and certain government programs. 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, persons who work for more than one establishment may be counted more than once. Moreover, some tabulations may exclude private household workers, unpaid family workers, and self-employed persons, but may include workers less than 16 years of age.

An additional difference in the data arises from the fact that persons who had a job but were not at work are included with the employed in the census statistics, whereas many of these persons are likely to be excluded from employment figures based on establishment payroll reports. Furthermore, the employment status data in census tabulations include persons on the basis of 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 comparing data for workers who commute between areas.

Census data on actual hours worked during the reference week may differ from data from other sources. The census measures hours actually worked, whereas some surveys measure hours paid for by employers. Comparability of census actual hours worked data may also be affected by the nature of the reference week (see "Reference Week").

For several reasons, the unemployment figures of the Census Bureau may not be comparable with published figures on unemployment compensation claims. For example, figures on unemployment compensation claims exclude persons who have exhausted their benefit rights, new workers who have not earned rights to unemployment insurance, and persons losing jobs not covered by unemployment insurance systems (including some workers in agriculture, domestic services, and religious organizations, and self-employed and unpaid family workers). In addition, the qualifications for drawing unemployment compensation differ from the definition of unemployment used by the Census Bureau. Persons working only a few hours during the week and persons with a job but not at work are sometimes eligible for unemployment compensation but are classified as "Employed" in the census. Differences in the geographical distribution of unemployment data arise because the place where claims are filed may not necessarily be the same as the place of residence of the unemployed worker.

FERTILITY

The data on fertility (also referred to as "children ever born") were derived from answers to questionnaire item 17, which was asked of a sample of women 15 years old and over regardless of marital status. Stillbirths, stepchildren, and adopted children were excluded from the number of children ever born. Ever-married women as children who were still living in the home. Never-married women were instructed to include all children born to them.

Data are most frequently presented in terms of the aggregate number of children ever born to women in the specified category and in terms of the rate per 1,000 women. For purposes of calculating the aggregate, the open-ended response category, "12 or more" is assigned a value of 13.

Comparability—The wording of the question on children ever born was the same in 1990 as in 1980. However, in virtually all of the tables in 1970 census volumes, data presented on children ever born assumed that single women were childless even though it was known that some of the women had had children. Therefore, rates and numbers of children ever born to all women are not comparable between the 1970 reports and later census reports, since the 1980 and 1990 reports include data on children ever born to single women. Data presented for children ever born to women ever married are comparable between the 1990 census and previous censuses containing this question.

GROUP QUARTERS

All persons not living in households are classified by the Census Bureau as living in group quarters. Two general categories of persons in group quarters are recognized: (1) institutionalized persons and (2) other persons in group quarters (also referred to as "noninstitutional group quarters").

Institutionalized Persons—Includes persons under formally authorized, supervised care or custody in institutions at the time of enumeration. Such persons are classified as "patients or inmates" of an institution regardless of the availability of nursing or medical care, the length of stay, or the number of persons in the institution. Generally, institutionalized persons are restricted to the institutional buildings and grounds (or must have passes or escorts to leave) and thus have limited interaction with the surrounding community. Also, they are generally under the care of trained staff who have responsibility for their safekeeping and supervision.

Type of Institution—The type of institution was determined as part of census enumeration activities. For institutions which specialize in only one specific type of service, all patients or inmates were given the same classification. For institutions which had multiple types of major services (usually general hospitals and Veterans' Administration hospitals), patients were classified according to selected types of wards. For example, in in "hospitals for the chronically ill." Each patient or inmate was classified in only one type of institution. Institutions include the following types:

Correctional Institutions—Includes commonwealth prisons, military stockades and jails, police lockups, halfway houses, local jails, and other confinement facilities.

Commonwealth Prisons—Where persons convicted of crimes serve their sentences. Residents who are criminally insane were classified on the basis of where they resided at the time of enumeration: (1) in institutions (or hospital wards) operated by a commonwealth prison; or (2) in institutions operated by departments of mental health or similar agencies.

Military Stockades, Jails—Operated by military police and used to hold persons awaiting trial or convicted of violating military laws.

Local Jails and Other Confinement Facilities—Includes facilities operated by municipios that primarily hold persons beyond arraignment, usually for more than 48 hours.

Police Lockups—Temporary-holding facilities operated by municipio police that hold persons for 48 hours or less only if they have not been formally charged in court.

Halfway Houses—Operated for correctional purposes and include probation and restitution centers, pre-release centers, and community-residential centers.

Other Types of Correctional Institutions—Correctional facilities specifically for alcohol/ drug abuse.

Nursing Homes—Comprises a heterogeneous group of places. The majority of patients are elderly, although persons who require nursing care because of chronic physical conditions may be found in these homes regardless of their age. Included in this category are skilled-nursing facilities, intermediate-care facilities, long-term care rooms in wards or buildings on the grounds of hospitals, or long-term care rooms/ nursing wings in congregate housing facilities. Also included are nursing, convalescent, and rest homes, such as soldiers', sailors', veterans', and fraternal or religious homes for the aged, with or without nursing care. In some census products, nursing homes are classified by type of ownership as "Commonwealth of Puerto Rico," "Private not-for-profit," and "Private for profit."

Mental (Psychiatric) Hospitals—Includes hospitals or wards for the criminally insane not operated by a prison, and psychiatric wards of general hospitals and veterans' hospitals. Patients receive supervised medical/ nursing care from formally-trained staff. In some census products, mental hospitals are classified by type of ownership as "Commonwealth of Puerto Rico."

Hospitals for Chronically Ill—Includes hospitals for patients who require long-term care, including those in military hospitals and wards for the chronically ill located on military bases; or other hospitals or wards for the chronically ill, which include tuberculosis hospitals or wards, wards in general and Veterans' Administration hospitals for the chronically ill, neurological wards, hospices, wards for patients with incurable diseases and other unspecified wards for the chronically ill. Patients who had no usual home elsewhere were enumerated as part of the institutional population in the wards of general and military hospitals. Most hospital patients are at the hospital temporarily and were enumerated at their usual place of residence. (For more information, see "Wards in General and Military Hospitals for Patients Who Have No Usual Home Elsewhere.")

Schools, Hospitals, or Wards for the Mentally Retarded—Includes those institutions such as wards in hospitals for the mentally retarded, and intermediate-care facilities for the mentally retarded that provide supervised medical/ nursing care from formally-trained staff. In some census products, this category is classified by type of ownership as "Commonwealth of Puerto Rico," "Private," and "Ownership not known."

Schools, Hospitals, or Wards for the Physically Handicapped—Includes three types of institutions: institutions for the blind, those for the deaf, and orthopedic wards and institutions for the physically handicapped. Institutions for persons with speech problems are classified with "institutions for the deaf." The category "orthopedic wards and institutions for the physically handicapped" includes those institutions providing relatively long-term care to accident victims, and to persons with polio, cerebral palsy, and muscular dystrophy. In some census products, this category is classified by type of ownership as "Commonwealth of Puerto Rico," "Private," and "Ownership not known."

Hospitals, and Wards for Drug/ Alcohol Abuse—Includes hospitals, and hospital wards in psychiatric and general hospitals. These facilities are equipped medically and designed for the diagnosis and treatment of medical or psychiatric illnesses associated with alcohol or drug abuse. Patients receive supervised medical care from formally-trained staff.

Wards in General and Military Hospitals for Patients Who Have No Usual Home Elsewhere—Includes maternity, neonatal, pediatric (including wards for boarder babies), military, and surgical wards of hospitals, and wards for persons with infectious diseases.

Juvenile Institutions—Includes homes, schools, and other institutions providing care for children (short- or long-term care). Juvenile institutions include the following types:

Homes for Abused, Dependent, and Neglected Children—Includes orphanages and other institutions which provide long-term care (usually more than 30 days) for children. This category is classified in some census products by type of ownership as "Commonwealth of Puerto Rico" and "Private."

Detention Centers—Includes institutions providing short-term care (usually 30 days or less) primarily for delinquent children pending disposition of their cases by a court. This category also covers diagnostic centers. In practice, such institutions may be caring for both delinquent and neglected children pending court disposition.

Other Persons in Group Quarters (also referred to as "noninstitutional group quarters")—Includes all persons who live in group quarters other than institutions. Persons who live in the following living quarters are classified as "other persons in group quarters" when there are 10 or more unrelated persons living in the unit; otherwise, these living quarters are classified as housing units.

Rooming Houses—Includes persons residing in rooming and boarding houses and living in quarters with 10 or more unrelated persons.

Group Homes—Includes "community-based homes" that provide care and supportive services. Such places include homes for the mentally ill, mentally retarded, and physically handicapped; drug/alcohol halfway houses; communes; and maternity homes for unwed mothers.

Homes for the Mentally Ill—Includes community-based homes that provide care primarily for the mentally ill. In some data products, this category is classified by type of ownership as "Federal," "Commonwealth of Puerto Rico," "Private," and "Ownership not known." Homes which combine treatment of the physically handicapped with treatment of the mentally ill are counted as homes for the mentally ill.

Homes for the Mentally Retarded—Includes community-based homes that provide care primarily for the mentally retarded. Homes which combine treatment of the physically handicapped with treatment of the mentally retarded are counted as homes for the mentally retarded. This category is classified by type of ownership in some census products, as "Commonwealth of Puerto Rico," "Private," or "Ownership not known."

Homes for the Physically Handicapped—Includes community-based homes for the blind, for the deaf, and other community-based homes for the physically handicapped. Persons with speech problems are classified with homes for the deaf. In some census products, this category is classified by type of ownership as "Commonwealth of Puerto Rico," "Private," or "Ownership not known."

Homes or Halfway Houses for Drug/Alcohol Abuse—Includes persons with no usual home elsewhere in places that provide community-based care and supportive services to persons suffering from a drug/alcohol addiction and to recovering alcoholics and drug abusers. Places providing community-based care for drug and alcohol abusers include group homes, detoxification centers, quarterway houses (residential treatment facilities that work closely with accredited hospitals), halfway houses, and recovery homes for ambulatory, mentally competent recovering alcoholics and drug abusers who may be re-entering the work force.

Maternity Homes for Unwed Mothers—Includes persons with no usual home elsewhere in places that provide domestic care for unwed mothers and their children. These homes may provide social services and post-natal care within the facility, or may make arrangements for women to receive such services in the community. Nursing services are usually available in the facility.

Other Group Homes—Includes persons with no usual home elsewhere in communes, foster care homes, and job corps centers with 10 or more unrelated persons. These types of places provide communal living quarters, generally for persons who have formed their own community in which they have common interests and often share or own property jointly.

Religious Group Quarters—Includes, primarily, group quarters for nuns teaching in parochial schools and for priests living in rectories. It also includes other convents and monasteries, except those associated with a general hospital or an institution.

College Quarters Off Campus—Includes privately-owned rooming and boarding houses off campus, if the place is reserved exclusively for occupancy by college students and if there are 10 or more unrelated persons. In census products, persons in this category are classified as living in a college dormitory.

Persons residing in certain other types of living arrangements are classified as living in "noninstitutional group quarters" regardless of the number of people sharing the unit. These include persons residing in the following types of group quarters:

College Dormitories—Includes college students in dormitories (provided the dormitory is restricted to students who do not have their families living with them), fraternity and sorority houses, and on-campus residential quarters used exclusively for those in religious orders who are attending college. Students in privately-owned rooming and boarding houses off campus are also included, if the place is reserved exclusively for occupancy by college-level students and if there are 10 or more unrelated persons.

Military Quarters—Includes military personnel living in barracks and dormitories on base, transient quarters on base for temporary residents (both civilian and military), and military ships. However, patients in military hospitals receiving treatment for chronic diseases or who have no usual home elsewhere, and persons being held in military stockades were included as part of the institutional population.

Agriculture Workers' Dormitories—Includes persons in migratory farm workers' camps on farms, bunkhouses for ranch hands, and other dormitories on farms.

Other Workers' Dormitories—Includes persons in logging camps, construction workers' camps, firehouse dormitories, job-training camps, and nonfarm migratory workers' camps.

Emergency Shelters for Homeless Persons (with sleeping facilities) and Visible in Street Locations—Includes persons enumerated during the "Shelter-and-Street-Night" operation primarily on March 20-21, 1990. Enumerators were instructed not to ask if a person was "homeless." If a person was at one of the locations below on March 20/ 21, the person was counted as described below. (For more information on the "Shelter-and-Street-Night" operation, see Appendix D, Collection and Processing Procedures.) This category is divided into four classifications:

Emergency Shelters for Homeless Persons (with sleeping facilities)—Includes persons who stayed overnight on March 20, 1990, in permanent and temporary emergency housing, missions, Salvation Army shelters, hotels, and motels used *entirely* for homeless persons regardless of the nightly rate charged; rooms in hotels and motels used *partially* for the homeless; and similar places known to have persons who have no usual home elsewhere staying overnight. If not shown separately, shelters and group homes which provide *temporary* sleeping facilities for runaway, neglected, and homeless children are included in this category in data products.

Shelters for Runaway, Neglected, and Homeless Children—Includes shelters/ group homes which provide *temporary* sleeping facilities for juveniles.

Visible in Street Locations—Includes street blocks and open public locations designated before March 20, 1990 by municipio and community officials as places where the homeless congregate at night. *All* persons found at predesignated street sites from 2 a.m. to 4 a.m. and leaving abandoned or boarded-up buildings from 4 a.m. to 8 a.m. on March 21, 1990, were enumerated during "street" enumeration, except persons in uniform such as police and persons engaged in obvious money-making activities other than begging or panhandling. Enumerators were instructed not to ask if a person was "homeless."

This cannot be considered a complete count of all persons living on the streets because those who were so well hidden that local people did not know where to find them were likely to have been missed as were persons moving about or in places not identified by local officials. It is also possible that persons with homes could have been included in the count of "visible in street locations" if they were present when the enumerator did the enumeration of a particular block.

Predesignated street sites include street corners, parks, bridges, persons emerging from abandoned and boarded-up buildings, noncommercial campsites, all-night restaurants, emergency hospital waiting rooms, airports, and bus stations.

Shelters for Abused Women (Shelters Against Domestic Violence or Family Crisis Centers)—Includes community-based homes or shelters that provide domiciliary care for women who have sought shelter from family violence and who may have been physically abused. Most shelters also provide care for children of abused women. These shelters may provide social services, meals, psychiatric treatment, and counseling. In some census products, "shelters for abused women" are included in the category "other noninstitutional group quarters."

Dormitories for Nurses and Interns in General and Military Hospitals—Includes group quarters for nurses and other staff members. It excludes patients.

Crews of Maritime Vessels—Includes officers, crew members, and passengers of Maritime U.S. flag vessels. All ocean-going ships are included.

Staff Residents of Institutions—Includes staff residing in group quarters on institutional grounds who provide formally-authorized, supervised care or custody for the institutionalized population.

Other Nonhousehold Living Situations—Includes persons with no usual home elsewhere enumerated during transient, or "T-Night" enumeration at YMCA's, YWCA's, commercial and government-run campgrounds, campgrounds at racetracks, fairs, and carnivals, and similar transient sites.

Living Quarters for Victims of Natural Disasters—Includes living quarters for persons temporarily displaced by natural disasters.

Limitation of the Data—Two types of errors can occur in the classification of "types of group quarters":

1. *Misclassification of Group Quarters*—During the 1990 Special Place Prelist operation, the enumerator determined the type of group quarters associated with each special place in their assignment. The enumerator used the Alphabetical Group Quarters Code List and Index to the Alphabetical Group Quarters Code List to assign a two-digit code number followed by either an "I," for institutional, or an "N," for noninstitutional to each group quarters. In 1990, unacceptable group quarter codes were edited. (For more information on editing of unacceptable data, see Appendix C, Accuracy of the Data.)
2. *No Classification (unknowns)*— Improvements were made to the 1990 Alphabetical Group Quarters Code List; that is, the inclusion of more group quarters categories and an "Index to the Alphabetical Group Quarters Code List."

Shelter and Street Night (S-Night)—For the 1990 census "Shelter-and-Street-Night" operation, persons well-hidden, moving about, or in locations enumerators did not visit were likely to be missed. The number of people missed will never be known; thus, the 1990 census cannot be considered to include a definitive count of Puerto Rico's total homeless population. It does, however, give an idea of relative differences among areas of Puerto Rico. Other components were counted as part of regular census procedures.

The count of persons in shelters and visible on the street could have been affected by many factors. How much the factors affected the count can never be answered definitively, but some elements include:

1. How well enumerators were trained and how well they followed procedures.
2. How well the list of shelter and street locations given to the Census Bureau by the local government reflected the actual places that homeless persons stay at night.
3. Municipios were encouraged to open temporary shelters for census night. Thus, people who may have been on the street otherwise were in shelters the night of March 20, so that the ratio of shelter-to-street population could be different than usual.
4. The media occasionally interfered with the ability to do the count.
5. How homeless people perceived the census and whether they wanted to be counted or feared the census and hid from it.

Comparability—For the 1990 census, the definition of institutionalized persons was revised so that the definition of "care" only includes persons under organized medical or formally-authorized, supervised care or custody. As a result of this change to the institutional definition, maternity homes are classified as noninstitutional rather than institutional group quarters as in previous censuses. The following types of other group quarters are classified as institutional rather than noninstitutional group quarters: "halfway houses (operated for correctional purposes)" and "wards in general and military hospitals for patients who have no usual home elsewhere," which includes maternity, neonatal, pediatric, military, and surgical wards of hospitals, other-purpose wards of hospitals, and wards for persons with infectious diseases. These changes should not significantly affect the comparability of data with earlier censuses because of the relatively small number of persons involved.

As in 1980, 10 or more unrelated persons living together were classified as living in noninstitutional group quarters. In 1970, the criteria was six or more unrelated persons.

Several changes also have occurred in the identification of specific types of group quarters. For the first time, the 1990 census identifies separately the following types of correctional institutions: persons in halfway houses (operated for correctional purposes), military stockades and jails, and police lockups. In 1990, tuberculosis hospitals or wards are included with hospitals for the chronically ill; in 1980, they were shown separately. For 1990, the noninstitutional group quarters category, "Group homes" is further classified as: group homes for drug/ alcohol abuse; maternity homes (for unwed mothers), group homes for the mentally ill, group homes for the mentally retarded, and group homes for the physically handicapped. Persons living in communes, foster-care homes, and job corps centers are classified with "Other group homes" only if 10 or more unrelated persons share the unit; otherwise, they are classified as housing units.

In 1990, workers' dormitories were classified as group quarters regardless of the number of persons sharing the dorm. In 1980, 10 or more unrelated persons had to share the dorm for it to be classified as a group quarters. In 1960, data on persons in military barracks were shown only for men. In subsequent censuses, they include both men and women.

In 1990 census data products, the phrase "inmates of institutions" was changed to "institutionalized persons." Also, persons living in noninstitutional group quarters were referred to as "other persons in group quarters," and the phrase "staff residents" was used for staff living in institutions.

In 1990, there are additional institutional categories and noninstitutional group quarters categories compared with the 1980 census. The institutional categories added include "hospitals and wards for drug/ alcohol abuse" and "military hospitals for the chronically ill." The noninstitutional group quarters categories added

include emergency shelters for homeless persons; shelters for runaway, neglected, and homeless children; shelters for abused women; and visible in street locations. Each of these noninstitutional group quarters categories was enumerated on March 20-21, 1990, during the "Shelter and Street Night" operation. (For more information on the "Shelter-and-Street-Night" operation, see Appendix D, Collection and Processing Procedures.)

HOUSEHOLD TYPE AND RELATIONSHIP

Household

A household includes all the persons who occupy a housing unit. A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated persons who share living arrangements.

In 100-percent tabulations, the count of households or householders always equals the count of occupied housing units. In sample tabulations, the numbers may differ as a result of the weighting process.

Persons Per Household—A measure obtained by dividing the number of persons in households by the number of households (or householders).

Relationship to Householder

Householder—The data on relationship to householder were derived from answers to questionnaire item 2, which was asked of all persons in housing units. One person in each household is designated as the householder. In most cases, this is the person, or one of the persons, in whose name the home is owned, being bought, or rented and who is listed in column 1 of the census questionnaire. If there is no such person in the household, any adult household member 15 years old and over could be designated as the householder.

Households are classified by type according to the sex of the householder and the presence of relatives. Two types of householders are distinguished: a family householder and a nonfamily householder. A family householder is a householder living with one or more persons related to him or her by birth, marriage, or adoption. The householder and all persons in the household related to him or her are family members. A nonfamily householder is a householder living alone or with nonrelatives only.

Spouse—Includes a person married to and living with a householder. This category includes persons in formal marriages, as well as persons classified as "consensually married."

The number of spouses is equal to the number of "married-couple families" or "married-couple households" in 100-percent tabulations. The number of spouses, however, is generally less than half of the number of "married persons with spouse present" in sample tabulations, since more than one married couple can live in a household, but only spouses of householders are specifically identified as "spouse." For sample tabulations, the number of "married persons with spouse present" includes married-couple subfamilies and married-couple families.

Child—Includes a son or daughter by birth, a stepchild, or adopted child of the householder, regardless of the child's age or marital status. The category excludes sons-in-law, daughters-in-law, and foster children.

Natural-Born or Adopted Son/ Daughter—A son or daughter of the householder by birth, regardless of the age of the child. Also, this category includes sons or daughters of the householder by legal adoption, regardless of the age of the child. If the stepson/ stepdaughter of the householder has been legally adopted by the householder, the child is still classified as a stepchild.

Stepson/ Stepdaughter—A son or daughter of the householder through marriage but not by birth, regardless of the age of the child. If the stepson/ stepdaughter of the householder has been legally adopted by the householder, the child is still classified as a stepchild.

Own Child—A never-married child under 18 years who is a son or daughter by birth, a stepchild, or an adopted child of the householder. In certain tabulations, own children are further classified as living with two parents or with one parent only. Own children of the householder living with two parents are by definition found only in married-couple families.

In a subfamily, an "own child" is a never-married child under 18 years of age who is a son, daughter, stepchild, or an adopted child of a mother in a mother-child subfamily, a father in a father-child subfamily, or either spouse in a married-couple subfamily.

"Related children" in a family include own children and all other persons under 18 years of age in the household, regardless of marital status, who are related to the householder, except the spouse of the householder. Foster children are not included since they are not related to the householder.

Other Relatives—In tabulations, includes any household member related to the householder by birth, marriage, or adoption, but not included specifically in another relationship category. In certain detailed tabulations, the following categories may be shown:

Grandchild—The grandson or granddaughter of the householder.

Brother/ Sister—The brother or sister of the householder, including stepbrothers, stepsisters, and brothers and sisters by adoption. Brothers-in-law and sisters-in-law are included in the "Other relative" category on the questionnaire.

Parent—The father or mother of the householder, including a stepparent or adoptive parent. Fathers-in-law and mothers-in-law are included in the "Other relative" category on the questionnaire.

Other Relatives—Anyone not listed in a reported category above who is related to the householder by birth, marriage, or adoption (brother-in-law, grandparent, nephew, aunt, mother-in-law, daughter-in-law, cousin, and so forth).

Nonrelatives—Includes any household member, including foster children not related to the householder by birth, marriage, or adoption. The following categories may be presented in more detailed tabulations:

Roomer, Boarder, or Foster Child—Roomer, boarder, lodger, and foster children or foster adults of the householder.

Housemate or Roommate—A person who is not related to the householder and who shares living quarters primarily in order to share expenses.

Unmarried Partner/ Compañero—A person who is not related to the householder, who shares living quarters, and who has a close personal relationship with the householder.

Other Nonrelatives—A person who is not related by birth, marriage, or adoption to the householder and who is not described by the categories given above.

When relationship is not reported for an individual, it is imputed according to the responses for age, sex, and marital status for that person while maintaining consistency with responses for other individuals in the household. (For more information on imputation, see Appendix C, Accuracy of the Data.)

Unrelated Individual

An unrelated individual is: (1) a householder living alone or with nonrelatives only, (2) a household member who is not related to the householder, or (3) a person living in group quarters who is not an inmate of an institution.

Family Type

A family consists of a householder and one or more other persons living in the same household who are related to the householder by birth, marriage, or adoption. All persons in a household who are related to the householder are regarded as members of his or her family. A household can contain only one family for purposes of census tabulations. Not all households contain families since a household may comprise a group of unrelated persons or one person living alone.

Families are classified by type as either a "married-couple family" or "other family" according to the sex of the householder and the presence of relatives. The data on family type are based on answers to questions on sex and relationship which were asked on a 100-percent basis.

Married-Couple Family—A family in which the householder and his or her spouse are enumerated as members of the same household.

Other Family:

Male Householder, No Wife Present—A family with a male householder and no spouse of householder present.

Female Householder, No Husband Present—A family with a female householder and no spouse of householder present.

Persons Per Family—A measure obtained by dividing the number of persons in families by the total number of families (or family householders).

Subfamily

A subfamily is a married couple (husband and wife enumerated as members of the same household) with or without never-married children under 18 years old, or one parent with one or more never-married children under 18 years old, living in a household and related to, but not including, either the householder or the householder's spouse. The number of subfamilies is not included in the count of families, since subfamily members are counted as part of the householder's family.

Subfamilies are defined during processing of sample data. In selected tabulations, subfamilies are further classified by type: married-couple subfamilies, with or without own children; mother-child subfamilies; and father-child subfamilies.

Lone parents include people maintaining either one-parent families or one-parent subfamilies. Married couples include husbands and wives in both married-couple families and married-couple subfamilies.

Unmarried-Partner/ Compañero Household

An unmarried-partner/ compañero household is a household other than a "married-couple household" that includes a householder and an "unmarried partner/ compañero." An "unmarried partner/ compañero" can be of the same sex or of the opposite sex of the householder. An "unmarried partner/ compañero" in an "unmarried partner/ compañero household" is an adult who is unrelated to the householder, but shares living quarters and has a close personal relationship with the householder.

Unmarried-Couple Household

An unmarried-couple household is composed of two unrelated adults of the opposite sex (one of whom is the householder) who share a housing unit with or without the presence of children under 15 years old.

Foster Children

Foster children are nonrelatives of the householder and are included in the category, "Roomer, boarder, or foster child" on the questionnaire. Foster children are identified as persons under 18 years old and living in households that have no nonrelatives 18 years old and over (who might be parents of the nonrelatives under 18).

Stepfamily

A stepfamily is a "married-couple family" with at least one stepchild of the householder present, where the householder is the husband.

Comparability—The 1990 definition of a household is the same as that used in 1980. The 1980 relationship category "Son/ daughter" has been replaced by two categories, "Natural-born or adopted son/ daughter" and "Stepson/ stepdaughter." "Grandchild" has been added as a separate category. The 1980 nonrelative categories: "Roomer, boarder" and "Roommate" have been replaced by the categories "Roomer, boarder, or foster child," "Housemate, roommate," and "Unmarried partner/ compañero." The 1980 nonrelative category "Paid employee" has been dropped.

INCOME IN 1989

The data on income in 1989 were derived from answers to questionnaire items 33 and 34. Information on money income received in the calendar year 1989 was requested from persons 15 years old and over. "Total income" is the algebraic sum of the amounts reported separately for wage or salary income; net nonfarm self-employment income; net farm self-employment income; interest, dividend, or net rental or royalty income; Social Security or railroad retirement income; public assistance or welfare income; retirement or disability income; and all other income. "Earnings" is defined as the algebraic sum of wage or salary income and net income from farm and nonfarm self-employment. "Earnings" represent the amount of income received regularly before deductions for personal income taxes, Social Security, bond purchases, union dues, medicare deductions, etc.

Receipts from the following sources are 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" from food stamps, public housing subsidies, medical care, employer contributions for persons, etc.; withdrawal of bank deposits; money borrowed; tax refunds; exchange of money between relatives living in the same household; gifts and lump-sum inheritances, insurance payments, and other types of lump-sum receipts.

Income Type in 1989

The eight types of income reported in the census are defined as follows:

1. *Wage or Salary Income*—Includes total money earnings received for work performed as an employee during the calendar year 1989. It includes wages, salary, Armed Forces pay, commissions, tips, piece-rate payments, and cash bonuses earned before deductions were made for taxes, bonds, pensions, union dues, etc.

2. *Nonfarm Self-Employment Income*—Includes net money income (gross receipts minus expenses) from one's own business, professional enterprise, or partnership. Gross receipts include the value of all goods sold and services rendered. Expenses includes costs of goods purchased, rent, heat, light, power, depreciation charges, wages and salaries paid, business taxes (not personal income taxes), etc.

3. *Farm Self-Employment Income*—Includes net money income (gross receipts minus operating expenses) from the operation of a farm by a person on his or her own account, as an owner, renter, or sharecropper. Gross receipts include the value of all products sold, government farm programs, money received from the rental of farm equipment to others, and incidental receipts from the sale of wood, sand, gravel, etc. Operating expenses include cost of feed, fertilizer, seed, and other farming supplies, cash wages paid to farmhands, depreciation charges, cash rent, interest on farm mortgages, farm building repairs, farm taxes (not commonwealth and Federal personal income taxes), etc. The value of fuel, food, or other farm products used for family living is not included as part of net income.

4. *Interest, Dividend, or Net Rental Income*—Includes interest on savings or bonds, dividends from stockholdings or membership in associations, net income from rental of property to others and receipts from boarders or lodgers, net royalties, and periodic payments from an estate or trust fund.

5. *Social Security Income*—Includes Social Security pensions and survivors benefits and permanent disability insurance payments made by the Social Security Administration prior to deductions for medical insurance, and railroad retirement insurance checks from the U.S. Government. Medicare reimbursements are not included.

6. *Public Assistance Income*—Includes: (1) supplementary security income payments made by Federal, commonwealth, or local welfare agencies to low income persons who are aged (65 years old or over), blind, or disabled; (2) aid to families with dependent children; (3) money received under the food stamps program; and (4) general assistance. Separate payments received for hospital or other medical care (vendor payments) are excluded from this item.

7. *Retirement or Disability Income*—Includes: (1) retirement pensions and survivor benefits from a former employer, labor union, or Federal, commonwealth, municipio, or other governmental agency; (2) disability income from sources such as worker's compensation; companies or unions; Federal, commonwealth, or local government; and the U.S. military; (3) periodic receipts from annuities and insurance; and (4) regular income from IRA and KEOGH plans.

8. *All Other Income*—Includes unemployment compensation, Veterans Administration (VA) payments, alimony and child support, contributions received periodically from persons not living in the household, military family allotments, net gambling winnings, and other kinds of periodic income other than earnings.

Income of Households—Includes the income of the householder and all other persons 15 years old and over in the household, whether related to the householder or not. Because many households consist of only one person, average household income is usually less than average family income.

Income of Families and Persons—In compiling statistics on family income, the incomes of all members 15 years old and over in each family are summed and treated as a single amount. However, for persons 15 years old and over, the total amounts of their own incomes are used. Although the income statistics covered the calendar year 1989, the characteristics of persons and the composition of families refer to the time of enumeration (April 1990). 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 1989 if these persons no longer resided with the family at the time of enumeration. Yet, family income amounts reported by related persons who did not reside with the family during 1989 but who were members of the family at the time of enumeration are included. However, the composition of most families was the same during 1989 as in April 1990.

Median Income—The median divides the income distribution into two equal parts, one having incomes above the median and the other having incomes below the median. For households and families, the median income is based on the distribution of the total number of units including those with no income. The median for persons is based on persons with income. The median income values for all households, families, and persons are computed on the basis of more detailed income intervals than shown in most tabulations. Median household or family income figures of $20,000 or less are calculated using linear interpolation. For persons, corresponding median values of $20,000 or less are also computed using linear interpolation. All other median income amounts are derived through Pareto interpolation. (For more information on medians and interpolation, see the discussion under "Derived Measures.")

Mean Income—This is the amount obtained by dividing the total income of a particular statistical universe by the number of units in that universe. Thus, mean household income is obtained by dividing total household income by the total number of households. For the various types of income the means are based on households having those types of income. "Per capita income" is the mean income computed for every man, woman, and child in a particular group. It is derived by dividing the total income of a particular group by the total population in that group.

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

Limitation of the Data—Since questionnaire entries for income frequently are based on memory and not on records, many persons tended to forget minor or irregular sources of income and, therefore, underreport their

income. Underreporting tends to be more pronounced for income sources that are not derived from earnings, such as Social Security, public assistance, or from interest, dividends, and net rental income.

There are errors of reporting due to the misunderstanding of the income questions such as reporting gross rather than net dollar amounts for the two questions on net self-employment income, which resulted in an overstatement of these items. Another common error is the reporting of identical dollar amounts in two of the eight type of income items where a respondent with only one source of income assumed that the second amount should be entered to represent total income. Such instances of overreporting had an impact on the level of mean nonfarm or farm self-employment income and mean total income published for the various geographical subdivisions of Puerto Rico.

Extensive computer editing procedures were instituted in the data processing operation to reduce some of these reporting errors and to improve the accuracy of the income data. These procedures corrected various reporting deficiencies and improved the consistency of reported income items associated with work experience and information on occupation and class of worker. For example, if persons reported they were self-employed on their own farm, not incorporated, but had reported wage and salary earnings only, the latter amount was shifted to net farm self-employment income. Also, if any respondent reported total income only, the amount was generally assigned to one of the type of income items according to responses to the work experience and class-of-worker questions. Another type of problem involved nonreporting of income data. Where income information was not reported, procedures were devised to impute appropriate values with either no income or positive or negative dollar amounts for the missing entries. (For more information on imputation, see Appendix C, Accuracy of the Data.)

In income tabulations for households and families, the lowest income group (e.g., less than $1,000) includes units that were classified as having no 1989 income. Many of these were living on income "in kind," savings, or gifts, were newly created families, or families in which the sole breadwinner had recently died or left the household. However, many of the households and families who reported no income probably had some money income which was not recorded in the census.

The income data presented in the tabulations covers money income only. The fact that many farm families receive an important part of their income in the form of "free" housing and 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. Nonmoney income such as business expense accounts, use of business transportation and facilities, or partial compensation by business for medical and educational expenses was also received by some nonfarm residents. Many low income families also receive income "in kind" from public welfare programs. In comparing income data for 1989 with earlier years, it should be noted that an increase or decrease in money income does not necessarily represent a comparable change in real income, unless adjustments for changes in prices are made.

Comparability—The income data collected in the 1980 and 1970 censuses are similar to the 1990 census data, but there are variations in the detail of the questions. In 1980, income information for 1979 was collected from persons in approximately 19 percent of all housing units and group quarters. Each person was required to report:

- Wage or salary income
- Net nonfarm self-employment income
- Net farm self-employment income
- Interest, dividend, or net rental or royalty income
- Social Security income
- Public assistance income
- Income from all other sources

Between the 1980 and 1990 censuses, there were minor differences in the processing of the data. In both censuses, all persons with missing values in one or more of the detailed type of income items *and* total income were designated as allocated. Each missing entry was imputed either as a "no" or as a dollar amount. If total income was reported *and* one or more of the type of income fields was not answered, then the entry in total income generally was assigned to one of the income types according to the socioeconomic characteristics of the income recipient. This person was designated as unallocated.

In 1980 and 1990, all nonrespondents with income not reported (whether heads of households or other persons) were assigned the reported income of persons with similar characteristics. (For more information on imputation, see Appendix C, "Accuracy of the Data.")

There was a difference in the method of computer derivation of aggregate income from individual amounts between the two census processing operations. In the 1980 census, income amounts less than $100,000 were coded in tens of dollars, and amounts of $100,000 or more were coded in thousands of dollars; $5 was added to each amount coded in tens of dollars and $500 to each amount coded in thousands of dollars. Entries of $999,000 or more were treated as $999,500 and losses of $9,999 or more were treated as minus $9,999. In the 1990 census, income amounts less than $999,999 were keyed in dollars. Amounts of $999,999 or more were treated as $999,999 and losses of $9,999 or more were treated as minus $9,999 in all of the computer derivations of aggregate income.

In 1970, information on income in 1969 was obtained from all members in every fifth housing unit and small group quarters (less than 15 persons) and every fifth person in all other group quarters. Each person was required to report:

- Wage or salary income
- Net nonfarm self-employment income
- Net farm self-employment income
- Social Security or Railroad Retirement
- Public assistance or welfare payments
- Income from all other sources

If a person reported a dollar amount in wage or salary, net nonfarm self-employment income, or net farm self-employment income, the person was considered as unallocated only if no further dollar amounts were imputed for any additional missing entries.

In 1960, data on income were obtained from all members in every fourth housing unit and from every fourth person 14 years old and over living in group quarters. Each person was required to report wage or salary income, net self-employment income, and income other than earnings received in 1959. An assumption was made in the editing process that no other type of income was received by a person who reported the receipt of either wage and salary income or self-employment but who had failed to report the receipt of other money income.

For several reasons, the income data shown in census tabulations are not directly comparable with those that may be obtained from statistical summaries of income tax returns. Income, as defined for Federal tax purposes, differs somewhat from the Census Bureau concept. Moreover, the coverage of income tax statistics is different because of the exemptions of persons having small amounts of income and the inclusion of net capital gains in tax returns. Furthermore, members of some families file separate returns and others file joint returns; consequently, the income reporting unit is not consistently either a family or a person.

The earnings data shown in census tabulations are not directly comparable with earnings records of the Social Security Administration. The earnings record data for 1989 excluded the earnings of most civilian government employees, some employees of nonprofit organizations, workers covered by the Railroad Retirement Act, and persons not covered by the program because of insufficient earnings. Furthermore, earnings received from any one employer in excess of $48,000 in 1989 are not covered by earnings records. Finally, because census data are obtained from household questionnaires, they may differ from Social Security Administration earnings record data, which are based upon employers' reports and the Federal income tax returns of self-employed persons.

INDUSTRY, OCCUPATION, AND CLASS OF WORKER

The data on industry, occupation, and class of worker were derived from answers to questionnaire items 29, 30, and 31 respectively. These questions were asked of a sample of persons. Information on industry relates to the kind of business conducted by a person's employing organization; occupation describes the kind of work the person does on the job.

For employed persons, the data refer to the person's job during the reference week. For those who worked at two or more jobs, the data refer to the job at which the person worked the greatest number of hours. For unemployed persons, the data refer to their last job. The industry and occupation statistics are derived from the detailed classification systems developed for the 1990 census as described below. The *Classified Index of Industries and Occupations* provided additional information on the industry and occupation classification systems.

Respondents provided the data for the tabulations by writing on the questionnaires descriptions of their industry and occupation. These descriptions were coded by clerical staff in the Census Bureau's Jacksonville, FL processing office. The clerical staff converted the written questionnaire descriptions to codes by comparing these descriptions to entries in the *Alphabetical Index of Industries and Occupations.* For the industry code, these coders also referred to an Employer Name List (formerly called Company Name List). This list, prepared from the Standard Statistical Establishment List developed by the Census Bureau for the economic censuses and surveys, contained the names of business establishments and their Standard Industrial Classification (SIC) codes converted to population census equivalents. This list facilitated coding and maintained industrial classification comparability.

Industry

The industry classification system developed for the 1990 census consists of 236 categories for employed persons, classified into 13 major industry groups. Since 1940, the industrial classification has been based on the Standard Industrial Classification Manual (SIC). The 1990 census classification was developed from the 1987 SIC published by the Office of Management and Budget, Executive Office of the President.

The SIC was designed primarily to classify establishments by the type of industrial activity in which they were engaged. However, census data, which were collected from households, differ in detail and nature from those obtained from establishment surveys. Therefore, the census classification systems, while defined in SIC terms, cannot reflect the full detail in all categories. There are several levels of industrial classification found in census products. For example, the 1990 CP-2, *Social*

and Economic Characteristics report includes 41 unique industrial categories, while the 1990 Summary Tape File 4 (STF 4) presents 72 categories.

Occupation

The occupational classification system developed for the 1990 census consists of 501 specific occupational categories for employed persons arranged into 6 summary and 13 major occupational groups. This classification was developed to be consistent with the Standard Occupational Classification (SOC) Manual: 1980, published by the Office of Federal Statistical Policy and Standards, U.S. Department of Commerce. Tabulations with occupation as the primary characteristic present several levels of occupational detail. The most detailed tabulations are shown in special 1990 tape files on occupation. This product contains all 501 occupational categories.

Some occupation groups are related closely to certain industries. Operators of transportation equipment, farm operators and workers, and private household workers account for major portions of their respective industries of transportation, agriculture, and private households. However, the industry categories include persons in other occupations. For example, persons employed in agriculture include truck drivers and bookkeepers; persons employed in the transportation industry include mechanics, freight handlers, and payroll clerks; and persons employed in the private household industry include occupations such as chauffeur, gardener, and secretary.

Class of Worker

The data on class of worker were derived from answers to questionnaire item 31. The information on class of worker refers to the same job as a respondent's industry and occupation and categorizes persons according to the type of ownership of the employing organization. The class of worker categories are defined as follows:

Private Wage and Salary Workers—Includes persons who worked for wages, salary, commission, tips, pay-in-kind, or piece rates for a private for profit employer or a private not-for-profit, tax-exempt or charitable organization. Self-employed persons whose business was incorporated are included with private wage and salary workers because they are paid employees of their own companies. Some tabulations present data separately for these subcategories: "For profit," "Not for profit," and "Own business incorporated."

Employees of foreign governments, the United Nations, or other formal international organizations were classified as "Private-not-for-profit."

Government Workers—Includes persons who were employees of any municipal, commonwealth, or Federal governmental unit, regardless of the activity of the particular agency. For some tabulations, the data were presented separately for the three levels of government.

Self-Employed Workers—Includes persons who worked for profit or fees in their own unincorporated business, profession, or trade, or who operated a farm.

Unpaid Family Workers—Includes persons who worked 15 hours or more without pay in a business or on a farm operated by a relative.

Salaried/ Self-Employed—In tabulations that categorize persons as either salaried or self-employed, the salaried category includes private and government wage and salary workers; self-employed includes self-employed persons and unpaid family workers.

The industry category, "Public administration," is limited to regular government functions such as legislative, judicial, administrative, and regulatory activities of governments. Other government organizations such as schools, hospitals, liquor stores, and bus lines are classified by industry according to the activity in which they are engaged. On the other hand, the class of worker government categories include all government workers.

Occasionally respondents supplied industry, occupation, or class of worker descriptions which were not sufficiently specific for precise classification or did not report on these items at all. Some of these cases were corrected through the field editing process and during the coding and tabulation operations. In the coding operation, certain types of incomplete entries were corrected using the *Alphabetical Index of Industries and Occupations*. For example, it was possible in certain situations to assign an industry code based on the occupation reported.

Following the coding operations, there was a computer edit and an allocation process. The edit first determined whether a respondent was in the universe which required an industry and occupation code. The codes for the three items (industry, occupation, and class of worker) were checked to ensure they were valid and were edited for their relation to each other. Invalid and inconsistent codes were either blanked or changed to a consistent code.

If one or more of the three codes were blank after the edit, a code was assigned from a "similar" person based on other items such as age, sex, education, farm or nonfarm residence, and weeks worked. If all the labor force and income data also were blank, all these economic items were assigned from one other person who provided all the necessary data.

Comparability—Comparability of industry and occupation data was affected by a number of factors, primarily the systems used to classify the questionnaire responses. For both the industry and occupation classification systems, the basic structures were generally the same from 1940 to 1970, but changes in the individual categories limited comparability of the data from one census to another. These changes were needed to recognize the "birth" of new industries and occupations, the "death" of others, and the growth and decline in existing industries and occupations, as well as, the desire of analysts and other users for more detail in the presentation of the data. Probably the greatest cause of incomparability is the movement of a segment of a category to a different category in the next census. Changes in the nature of jobs and respondent terminology, and refinement of category composition made these movements necessary.

In the 1990 census, the industry classification had minor revisions to reflect recent changes to the SIC. The 1990 occupational classification system is essentially the same as that for the 1980 census. However, the conversion of the census classification to the SOC in 1980 meant that the 1990 classification system was less comparable to the classifications used prior to the 1980 census.

Other factors that affected data comparability included the universe to which the data referred (in 1970, the age cutoff for labor force was changed from 14 years to 16 years); how the industry and occupation questions were worded on the questionnaire (for example, important changes were made in 1970); improvements in the coding procedures (the Employer Name List technique was introduced in 1960); and how the "not reported" cases are handled. Prior to 1970, they were placed in the residual categories, "Industry not reported" and "Occupation not reported." In 1970, an allocation process was introduced that assigned these cases to major groups. In 1990, as in 1980, the "Not reported" cases were assigned to individual categories. Therefore, the 1980 and 1990 data for individual categories included some numbers of persons who were tabulated in a "Not reported" category in previous censuses.

The following publications contain information on the various factors affecting comparability and are particularly useful for understanding differences in the occupation and industry information from earlier censuses: U.S. Bureau of the Census, *Changes Between the 1950 and 1960 Occupation and Industry Classifications With Detailed Adjustments of 1950 Data to the 1960 Classifications*, Technical Paper No. 18, 1968; U.S. Bureau of the Census, *1970 Occupation and Industry Classification Systems in Terms of their 1960 Occupation and Industry Elements*, Technical Paper No. 26, 1972; and U.S. Bureau of the Census, *The Relationship Between the 1970 and 1980 Industry and Occupation Classification Systems*, Technical Paper No. 59, 1988. For citations for earlier census years, see the 1980 Census of Population report, PC80-1-D, *Detailed Population Characteristics*.

The 1990 census introduced an additional class of worker category for "private not-for-profit" employers. This category is a subset of the 1980 category "employee of private employer" so there is no comparable data before 1990. Also in 1990, employees of foreign governments, the United Nations, etc., are classified as "private not-for-profit," rather than Federal Government as in 1970 and 1980. While in theory, there was a change in comparability, in practice, the small number of U.S. residents working for foreign governments made this change negligible.

Comparability between the statistics on industry and occupation from the 1990 census and statistics from other sources is affected by many of the factors described in the section on "Employment Status." These factors are primarily geographic differences between residence and place of work, different dates of reference, and differences in counts because of dual job holding. Industry data from population censuses cover all industries and all kinds of workers, whereas, data from establishments often excluded private household workers, government workers, and the self-employed. Also, the replies from household respondents may have differed in detail and nature from those obtained from establishments.

Occupation data from the census and data from government licensing agencies, professional associations, trade unions, etc., may not be as comparable as expected. Organizational listings often include persons not in the labor force or persons devoting all or most of their time to another occupation; or the same person may be included in two or more different listings. In addition, relatively few organizations, except for those requiring licensing, attained complete coverage of membership in a particular occupational field.

JOURNEY TO WORK

Place of Work

The data on place of work were derived from answers to questionnaire item 23, which was asked of persons who indicated in question 22 that they worked at some time during the reference week. (For more information, see discussion under "Reference Week.")

Data were tabulated for workers 16 years and over; that is, members of the U.S. Armed Forces and civilians who were at work during the reference week. Data on place of work refer to the geographic location at which workers carried out their occupational activities during the reference week. The place of work (city, town, or village) was asked as well as the municipio, Puerto Rico,

State, or foreign country. If the person's employer operated in more than one location, the location or branch where the respondent worked was requested.

Persons who worked at more than one location during the reference week were asked to report the one at which they worked the greatest number of hours. Persons who regularly worked in several locations each day during the reference week were requested to give the location at which they began work each day. For cases in which daily work did not begin at a central place each day, the person was asked to provide as much information as possible to describe the area in which he or she worked most during the reference week.

In some tabulations, place-of-work locations may be defined as "in area of residence" and "outside area of residence." The area of residence may vary from table to table or even within a table, and refers to the particular area or areas shown. For example, in a table that provides data for municipios, "in area of residence" refers to persons who worked in the same municipio in which they lived, while "outside area of residence" refers to persons whose workplace was located in a municipio different from the one in which they lived. Similarly, in a table that provides data for several types of areas, such as Puerto Rico and its individual metropolitan areas (MA's), municipios, and places, the place-of-work data will be variable and is determined by the geographic level (Puerto Rico, MA, county, or place) shown in each section of the tabulation.

In tabulations that present data for an MSA/ PMSA, place-of-work locations are specified to show the main destinations of workers living in the MSA/ PMSA. (For more information on metropolitan areas (MA's), see Appendix A, Area Classifications.) All place-of-work locations are identified with respect to the boundaries of the MSA/ PMSA as "inside MSA/ PMSA" or "outside MSA/ PMSA." Locations within the MSA/ PMSA are further divided into each central city, and each municipio or municipio balance. Selected large incorporated places also may be specified as places of work. Locations outside the MSA/ PMSA are specified if they are important commuting destinations for residents of the MSA/ PMSA, and may include adjoining MSA/ PMSA's and their central cities, their component municipios, large incorporated places, or municipios, cities, or other geographic areas outside any MA.

In tabulations for some MSA/ PMSA's, place-of-work locations may be identified as "areas" (e.g., Area 1, Area 5, Area 12, etc.). Such areas consist of groups of places, census designated places, or municipios that have been identified as unique place-of-work destinations. In tabulations that present data for census tracts outside MA's, place-of-work locations are defined as "in municipio of residence" and "outside municipio of residence."

In selected areas, census designated places (CDP's) may appear in the tabulations as places of work. The accuracy of place-of-work data for CDP's may be affected by the extent to which their census names were familiar to respondents, and by coding problems caused by similarities between the CDP name and the names of other geographic jurisdictions in the same vicinity.

Place-of-work data may show a few workers who made unlikely daily work trips (e.g., workers who lived in Puerto Rico and worked in New York). This result is attributable to persons who worked during the reference week at a location that was different from their usual place of work, such as persons away from home on business.

Comparability—The wording of the question on place of work was substantially the same in the 1990 census as it was in 1980 although street address and ZIP Code were not asked in the 1990 census, due to changing data needs. Data on place of work from the 1990 census are based on the full census sample, while data from the 1980 census were based on only about one-half of the full sample.

For the 1980 census, nonresponse or incomplete responses to the place-of-work question were not allocated, resulting in the use of "not reported" categories in the 1980 publications. However, for the 1990 census, when place of work was not reported or the response was incomplete, a work location was allocated to the person based on their means of transportation to work, travel time to work, industry, and location of residence and workplace of others. The 1990 publications, therefore, do not contain a "not reported" category for the place-of-work data.

Comparisons between 1980 and 1990 census data on the gross number of workers in particular commuting flows, or the total number of persons working in an area, should be made with extreme caution. Any apparent increase in the magnitude of the gross numbers may be due solely to the fact that for 1990 the "not reported" cases have been distributed among specific place-of-work destinations, instead of tallied in a separate category as in 1980.

Limitation of the Data—The data on place of work relate to a reference week; that is, the calendar week preceding the date on which the respondents completed their questionnaires or were interviewed by enumerators. This week is not the same for all respondents because the enumeration was not completed in 1 week. However, for the majority of persons, the reference week for the 1990 census is the last week in March 1990. The lack of a uniform reference week means that the place-of-work data reported in the census will not exactly match the distribution of workplace locations observed or measured during an actual workweek.

The place-of-work data are estimates of persons 16 years old and over who were both employed and at work during the reference week (including persons in the U.S. Armed Forces). Persons who did not work

during the reference week but had jobs or businesses from which they were temporarily absent due to illness, bad weather, industrial dispute, vacation, or other personal reasons are not included in the place-of-work data. Therefore, the data on place of work understate the total number of jobs or total employment in a geographic area during the reference week. It also should be noted that persons who had irregular, casual, or unstructured jobs during the reference week may have erroneously reported themselves as not working.

The location where the individual worked most often during the reference week was recorded on the census questionnaire. If a worker held two jobs, only data about the primary job (the one worked the greatest number of hours during the preceding week) was requested. Persons who regularly worked in several locations during the reference week were requested to give the location at which they began work each day. For cases in which daily work was not begun at a central place each day, the person was asked to provide as much information as possible to describe the area in which he or she worked most during the reference week.

Means of Transportation to Work

The data on means of transportation to work were derived from answers to questionnaire item 24a, which was asked of persons who indicated in question 22 that they worked at some time during the reference week. (For more information, see discussion under "Reference Week.") Means of transportation to work refers to the principal mode of travel or type of conveyance that the person usually used to get from home to work during the reference week.

Persons who used different means of transportation on different days of the week were asked to specify the one they used most often, that is, the greatest number of days. Persons who used more than one means of transportation to get to work each day were asked to report the one used for the longest distance during the work trip. The category, "Car, truck, or van," includes workers using a car (including company cars but excluding taxicabs), a truck of one-ton capacity or less, or a van. The category, "Public transportation," includes workers who used a bus, público, ferryboat, or taxicab even if each mode is not shown separately in the tabulation. The category, "Other means," includes workers who used a mode of travel which is not identified separately within the data distribution. The category, "Other means," may vary from table to table, depending on the amount of detail shown in a particular distribution.

The means of transportation data for some areas may show workers using modes of public transportation that are not available in those areas (e.g., ferryboat riders in an area where there actually is no ferryboat service). This result is largely due to persons who worked during the reference week at a location that was different from their usual place of work (such as persons away from home on business in an area where ferryboat service was available) and persons who used more than one means of transportation each day but whose principal means was unavailable where they lived (for example, residents of nonmetropolitan areas who drove to the fringe of an MA and took the bus most of the distance to work).

Private Vehicle Occupancy

The data on private vehicle occupancy were derived from answers to questionnaire item 24b. This question was asked of persons who indicated in question 22 that they worked at some time during the reference week and who reported in question 24a that their means of transportation to work was "Car, truck, or van." (For more information, see discussion under "Reference Week.")

Private vehicle occupancy refers to the number of persons who usually rode to work in the vehicle during the reference week. The category, "Drove alone," includes persons who usually drove alone to work as well as persons who were driven to work by someone who then drove back home or to a nonwork destination. The category, "Carpooled," includes workers who reported that two or more persons usually rode to work in the vehicle during the reference week.

Persons Per Car, Truck, or Van—This is obtained by dividing the number of persons who reported using a car, truck, or van to get to work by the number of such vehicles that they used. The number of vehicles used is derived by counting each person who drove alone as one vehicle, each person who reported being in a two-person carpool as one-half vehicle, each person who reported being in a three-person carpool as one-third vehicle, and so on, and then summing all the vehicles.

Time Leaving Home to Go to Work

The data on time leaving home to go to work were derived from answers to questionnaire item 25a. This question was asked of persons who indicated in question 22 that they worked at some time during the reference week and who reported in question 24a that they worked outside their home. The departure time refers to the time of day that the person usually left home to go to work during the reference week. (For more information, see discussion under "Reference Week.")

Travel Time to Work

The data on travel time to work were derived from answers to questionnaire item 25b. This question was asked of persons who indicated in question 22 that they

worked at some time during the reference week and who reported in question 24a that they worked outside their home. Travel time to work refers to the total number of minutes that it usually took the person to get from home to work during the reference week. The elapsed time includes time spent waiting for public transportation, picking up passengers in carpools, and time spent in other activities related to getting to work. (For more information, see discussion under "Reference Week.")

MARITAL STATUS

The data on marital status were derived from answers to questionnaire item 5, which was asked of all persons. The marital status classification refers to the status at the time of enumeration. Data on marital status are tabulated only for persons 15 years old and over.

All persons were asked whether they were "now married," "consensually married," "widowed," "divorced," "separated," or "never married." Couples who live together (unmarried persons, consensually married persons) were allowed to report the marital status they considered the most appropriate.

Never Married—Includes all persons who have never been married, including persons whose only marriage(s) was annulled.

Ever Married—Includes persons married at the time of enumeration (including those separated), widowed, or divorced.

Now Married, Except Separated—Includes persons whose current marriage has not ended through widowhood, divorce, or separation (regardless of previous marital history). In certain tabulations, currently married persons are further classified as "spouse present" or "spouse absent."

Consensually Married—Includes persons living in a marital union without a civil or religious matrimonial contract and are classified as "now married;" they are reported separately as "Consensually married." The category may also include couples who live together if they consider this category the most appropriate.

Separated—Includes persons legally separated or otherwise absent from their spouse because of marital discord. Included are persons who have been deserted or who have parted because they no longer want to live together but who have not obtained a divorce.

Widowed—Includes widows and widowers who have not remarried.

Divorced—Includes persons who are legally divorced and who have not remarried.

In selected sample tabulations, data for married and separated persons are reorganized and combined with information on the presence of the spouse in the same household.

Now Married—All persons whose current marriage has not ended by widowhood or divorce. This category includes persons defined above as "separated."

Spouse Present—Married persons whose wife or husband was enumerated as a member of the same household, including those whose spouse may have been temporarily absent for such reasons as travel or hospitalization.

Spouse Absent—Married persons whose wife or husband was not enumerated as a member of the same household. This category also includes all married persons living in group quarters.

Separated—Defined above.

Spouse Absent, Other—Married persons whose wife or husband was not enumerated as a member of the same household, excluding separated. Included is any person whose spouse was employed and living away from home or in an institution or absent in the U.S. Armed Forces.

Differences between the number of currently married males and the number of currently married females occur because of reporting differences and because some husbands and wives have their usual residence in different areas. In sample tabulations, these differences can also occur because different weights are applied to the individual's data. Any differences between the number of "now married, spouse present" males and females are due solely to sample weighting. By definition, the numbers would be the same.

When marital status was not reported, it was imputed according to the relationship to the householder and sex and age of the person. (For more information on imputation, see Appendix C, Accuracy of the Data.)

Comparability—The 1990 marital status definitions are the same as those used in 1980 with the exception of the term "never married" which replaces the term "single" in tabulations. A general marital status question has been asked in Puerto Rico in every census since 1910.

MOBILITY LIMITATION STATUS

The data on mobility limitation status were derived from answers to questionnaire item 20a, which was asked of a sample of persons 15 years old and over.

Persons were identified as having a mobility limitation if they had a health condition that had lasted for 6 or more months and which made it difficult to go outside the home alone. Examples of outside activities on the questionnaire included shopping and visiting the doctor's office.

The term "health condition" referred to both physical and mental conditions. A temporary health problem, such as a broken bone that was expected to heal normally, was not considered a health condition.

Comparability—This was the first time that a question on mobility limitation was included in the census.

PARENTS' PLACE OF BIRTH

The data on father's place of birth and mother's place of birth were derived from answers to questionnaire items 11a and 11b, which were asked on a sample basis. Persons whose parents were born outside Puerto Rico or the United States were asked to report each parents' country of birth according to the international boundaries as recognized by the United States government on April 1, 1990. Persons not reporting parents' place of birth were assigned the responses reported by a sibling or allocated the response of another person with similar characteristics. If parents' place of birth was allocated as outside Puerto Rico or the United States, they were not assigned a specific country of birth but were classified as "Born elsewhere, country not specified."

In most tabulations, selected countries of birth including the United States, are shown for the parents of persons born in Puerto Rico. For persons living in Puerto Rico in 1990 but born in the United States, the tabulations show the number of persons whose parents were born in Puerto Rico, the United States, or elsewhere.

Comparability—Data on parents' place of birth were not allocated for nonresponse in 1980.

PLACE OF BIRTH

The data on place of birth were derived from answers to questionnaire item 6, which was asked on a sample basis. The place of birth question asked respondents to report the municipio in Puerto Rico, the U.S. State, or the foreign country or territory where they were born. Persons born outside Puerto Rico were asked to report their place of birth according to current international boundaries. Since numerous changes in boundaries of foreign countries have occurred in the last century, some persons may have reported their place of birth in terms of boundaries that existed at the time of their birth or time of their departure, or in accordance with their own national preference.

Persons not reporting place of birth were assigned the birthplace of another family member or were allocated the response of another person with similar characteristics. Persons allocated as born outside Puerto Rico or the United States were not also allocated a specific country of birth, but were classified as "Born abroad, country not specified."

Persons born outside Puerto Rico are shown by selected area, country, or region of birth; the places of birth shown in selected data products were selected based on the number of respondents who chose to report that area or country of birth.

Comparability—Data on place of birth have been collected in each census of Puerto Rico since 1910. Similar data were shown in tabulations for the 1980 census. Nonresponse was allocated in a similar manner in 1980; however, prior to 1980, nonresponse to the place of birth question was not allocated.

The questionnaire instruction to report mother's place of residence rather than the location of the hospital, if born in a hospital, was dropped in 1990. Evaluation studies of the 1970 and 1980 U.S. data demonstrated that this instruction was generally either ignored or misunderstood. This change may have some effect on data for municipios that are adjacent to metropolitan areas or are a part of metropolitan areas that cross municipio boundaries.

POVERTY STATUS IN 1989

The data on poverty status were derived from answers to the same questions as the income data, questionnaire items 33 and 34. (For more information, see the discussion under "Income in 1989.") Poverty statistics presented in census publications were based on a definition originated by the Social Security Administration in 1964 and subsequently modified by Federal interagency committees in 1969 and 1980 and prescribed by the Office of Management and Budget in Directive 14 as the standard to be used by Federal agencies for statistical purposes.

At the core of this definition was the 1961 economy food plan, the least costly of four nutritionally adequate food plans designed by the Department of Agriculture. It was determined from the Agriculture Department's 1955 survey of food consumption that families of three or more persons spend approximately one-third of their income on food; hence, the poverty level for these families was set at three times the cost of the economy food plan. For smaller families and persons living alone, the cost of the economy food plan was multiplied by factors that were slightly higher to compensate for the relatively larger fixed expenses for these smaller households.

The income cutoffs used by the Census Bureau to determine the poverty status of families and unrelated individuals included a set of 48 thresholds arranged in a

two-dimensional matrix consisting of family size (from one person to nine or more persons) cross-classified by presence and number of family members under 18 years old (from no children present to eight or more children present). Unrelated individuals and two-person families were further differentiated by age of the householder (under 65 years old and 65 years old and over).

The total income of each family or unrelated individual in the sample was tested against the appropriate poverty threshold to determine the poverty status of that family or unrelated individual. If the total income was less than the corresponding cutoff, the family or unrelated individual was classified as "below the poverty level." The number of persons below the poverty level was the sum of the number of persons in families with incomes below the poverty level and the number of unrelated individuals with incomes below the poverty level.

The poverty thresholds are revised annually to allow for changes in the cost of living as reflected in the Consumer Price Index. The average poverty threshold for a family of four persons was $12,674 in 1989. (For more information, see table A below.) Poverty thresholds were applied on a national basis and were not adjusted for regional, State or local variations in the cost of living. Therefore, the thresholds used for Puerto Rico are the same as those used for the United States. For a detailed discussion of the poverty definition, see U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 171, *Poverty in the United States: 1988 and 1989*.

Persons for Whom Poverty Status is Determined—Poverty status was determined for all persons except institutionalized persons, persons in military group quarters and in college dormitories, and unrelated individuals under 15 years old. These groups also were excluded from the denominator when calculating poverty rates.

Specified Poverty Levels—Since the poverty levels currently in use by the Federal Government do not meet all the needs of data users, some of the data are presented for alternate levels. These specified poverty levels are obtained by multiplying the income cutoffs at the poverty level by the appropriate factor. For example, the average income cutoff at 125 percent of poverty level was $15,843 ($12,674 x 1.25) in 1989 for a family of four persons.

Weighted Average Thresholds at the Poverty Level—The average thresholds shown in the first column of table A are weighted by the presence and number of children. For example, the weighted average threshold for a given family size is obtained by multiplying the threshold for each presence and number of children category within the given family size by the number of families in that category. These products are then aggregated across the entire range of presence and number of children categories, and the aggregate is divided by the total number of families in the group to yield the weighted average threshold at the poverty level for that family size.

Since the basic thresholds used to determine the poverty status of families and unrelated individuals are applied to all families and unrelated individuals, the weighted average poverty thresholds are derived using all families and unrelated individuals rather than just those classified as being below the poverty level. To obtain the weighted poverty thresholds for families and unrelated individuals below alternate poverty levels, the weighted thresholds shown in table A may be multiplied directly by the appropriate factor. The weighted average thresholds presented in the table are based on the March 1990 Current Population Survey for the United States. However, these thresholds would not differ significantly from those based on the 1990 census.

Table A. **Poverty Thresholds in 1989 by Size of Family and Number of Related Children Under 18 Years**

Size of Family Unit	Weighted average thresholds	Related children under 18 years								
		None	One	Two	Three	Four	Five	Six	Seven	Eight or more
One person (unrelated individual)	$6,310									
Under 65 years	6 451	$6,451								
65 years and over	5,947	5,947								
Two persons	8,076									
Householder under 65 years	8,343	8,303	$8,547							
Householder 65 years and over	7,501	7,495	8,515							
Three persons	9,885	9,699	9,981	$9,990						
Four persons	12,674	12,790	12,999	12,575	$12,619					
Five persons	14,990	15,424	15,648	15,169	14,798	$14,572				
Six persons	16,921	17,740	17,811	17,444	17,092	16,569	$16,259			
Seven persons	19,162	20,412	20,540	20,101	19,794	19,224	18,558	$17,828		
Eight persons	21,328	22,830	23,031	22,617	22,253	21,738	21,084	20,403	$20,230	
Nine or more persons	25,480	27,463	27,596	27,229	26,921	26,415	25,719	25,089	24,933	$23,973

Income Deficit—Represents the difference between the total income of families and unrelated individuals below the poverty level and their respective poverty thresholds. In computing the income deficit, families reporting a net income loss are assigned zero dollars and for such cases the deficit is equal to the poverty threshold.

This measure provided an estimate of the amount which would be required to raise the incomes of all poor families and unrelated individuals to their respective poverty thresholds. The income deficit is thus a measure of the degree of impoverishment of a family or unrelated individual. However, caution must be used in comparing the average deficits of families with different characteristics. Apparent differences in average income deficits may, to some extent, be a function of differences in family size.

Mean Income Deficit—Represents the amount obtained by dividing the total income deficit of a group below the poverty level by the number of families (or unrelated individuals) in that group.

Comparability—The poverty definition used in the 1990 and 1980 censuses differed slightly from the one used in the 1970 census. Three technical modifications were made to the definition used in the 1970 census as described below:

1. The separate thresholds for families with a female householder with no husband present and all other families were eliminated. For the 1980 and 1990 censuses, the weighted average of the poverty thresholds for these two types of families was applied to all types of families, regardless of the sex of the householder.

2. Farm families and farm unrelated individuals no longer had a set of poverty thresholds that were lower than the thresholds applied to nonfarm families and unrelated individuals. The farm thresholds were 85 percent of the corresponding levels for nonfarm families in the 1970 census. The same thresholds were applied to all families and unrelated individuals regardless of residence in 1980 and 1990.

3. The thresholds by size of family were extended from seven or more persons in 1970 to nine or more persons in 1980 and 1990.

These changes resulted in a minimal increase in the number of poor at the national level. For a complete discussion of these modifications and their impact, see the Current Population Reports, Series P-60, No. 133.

The population covered in the poverty statistics derived from the 1980 and 1990 censuses was essentially the same as in the 1970 census. The only difference was that in 1980 and 1990, unrelated individuals under 15 years old were excluded from the poverty universe, while in 1970, only those under 14 years old were excluded. The poverty data from the 1960 census excluded all persons in group quarters and included all unrelated individuals regardless of age. It was unlikely that these differences in population coverage would have had significant impact when comparing the poverty data for persons since the 1960 censuses.

Current Population Survey of the U.S.—Because of differences in the questionnaires and data collection procedures, estimates of the number of persons below the poverty level by various characteristics from the 1990 census may differ from those reported in the March 1990 Current Population Survey.

REFERENCE WEEK

The data on labor force status and journey to work were related to the reference week; that is, the calendar week preceding the date on which the respondents completed their questionnaires or were interviewed by enumerators. This week is not the same for all respondents since the enumeration was not completed in one week. The occurrence of holidays during the enumeration period could affect the data on actual hours worked during the reference week, but probably had no effect on overall measurement of employment status (see the discussion below on "Comparability").

Comparability—The reference weeks for the 1990 and 1980 censuses differ in that Passover and Good Friday occurred in the first week of April 1980, but in the second week of April 1990. Many workers presumably took time off for those observances. The differing occurrence of these holidays could affect the comparability of the 1990 and 1980 data on actual hours worked for some areas if the respective weeks were the reference weeks for a significant number of persons. The holidays probably did not affect the overall measurement of employment status since this information was based on work activity during the entire reference week.

RESIDENCE IN 1985

The data on residence in 1985 were derived from answers to questionnaire item 12b, which asked for location of residence on April 1, 1985, for those persons reporting in question 12a that on that date they lived in a different house than their current residence. Persons living in Puerto Rico in 1985 were asked to report the name of the municipio and the name of the city, town or village where they lived. Persons living in the United States in 1985 were asked to report the names of the State, county, and city, town, or village where they lived. All other persons were asked to report the name of the foreign country or territory where they were living on that date.

Residence in 1985 is used in conjunction with location of current residence to determine the extent of residential mobility of the population and the resulting redistribution of the population across the various municipios and metropolitan areas in Puerto Rico. The movement between the various States and local areas in the United States and the municipios and other smaller areas in Puerto Rico can also be determined.

When no information on residence in 1985 was reported for a person, information for other family members, if available, was used to assign a location of residence in 1985. All cases of nonresponse or incomplete response, not assigned a previous residence based on information from other family members, were allocated the previous residence of another person with similar characteristics who provided complete information.

The tabulation category, "Same house," includes all persons 5 years old and over who did not move during the 5 years as well as those who had moved but by 1990 had returned to their 1985 residence. The category, "Different house in Puerto Rico," includes persons who lived in Puerto Rico in 1985 but in a different house or apartment from the one they occupied on April 1, 1990. These movers are then further subdivided according to the type of move.

In most tabulations, movers are divided into two groups according to their 1985 residence: "Same municipio" and "Different municipio." Persons living in the United States in 1985 are usually shown separately and individual regions or States may be shown. The category, "Elsewhere," includes those persons who were residing in a foreign country or an outlying area of the U.S. in 1985, including members of the U.S. Armed Forces and their dependents.

In tabulations for metropolitan areas, movers are categorized according to the metropolitan status of their current and previous residences, resulting in such groups as movers within an MSA/ PMSA, movers between MSA/ PMSA's, movers from nonmetropolitan areas to MSA/ PMSA's, and movers from central cities to the remainder of an MSA/ PMSA. In some tabulations, these categories are further subdivided by movers within or between central cities and suburbs of the same or a different MSA/ PMSA.

The number of persons who were living in a different house in 1985 is somewhat less than the total number of moves during the 5-year period. Some persons in the same house at the two dates had moved during the 5-year period but by the time of the census had returned to their 1985 residence. Other persons who were living in a different house had made one or more intermediate moves. For similar reasons, the number of persons living in a different municipio or different MSA/ PMSA may be understated.

Comparability—Similar questions were asked on all previous censuses beginning in 1940, except the questions in 1950 referred to residence 1 year earlier rather than 5 years earlier. 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. Comparability with the 1960, 1970, and 1980 censuses is also somewhat reduced because nonresponse, not assigned based on information from other family members, was not allocated in those earlier censuses.

RESIDENCE IN THE UNITED STATES BETWEEN 1980 AND 1990

The data on residence in the United States between 1980 and 1990 were derived from answers to questionnaire items 13a, 13b, 13c, and 13d. These questions were asked of a sample of persons 5 years old and over. Those who reported having lived in the United States for 6 or more consecutive months during the last 10 years were asked to report the year they came or returned to Puerto Rico the last time, how long they stayed, and their activity while in the United States.

Tabulations generally show year of return to Puerto Rico for persons born in Puerto Rico, year of arrival or return for persons born outside Puerto Rico, and length of stay; these data are shown for persons 5 years old and over. In addition, main activity while in the United States (in the Armed Forces, working at a job or business, attending school or college, or something else) is shown separately for male and female persons 16 years old and over.

Comparability—Similar data were collected in the 1970 and 1980 censuses. However, the reference period for the residence in the United States for the 1970 census was limited to the last 5 years. In addition, the length of stay was indicated as "6 or more months" in 1970 and "6 or more consecutive months" in the 1980 and 1990 censuses. As a result, the 1970 data may include persons who reported several visits during the last 5 years, each consisting of less than 6 months, as an overall stay of 6 or more months. Data on activity were tabulated for persons 14 years old and over in 1970 and for persons 16 years old and over in 1980 and 1990. Data on residence in the United States was not allocated in 1970 or in 1980.

SCHOOL ENROLLMENT AND LABOR FORCE STATUS

Tabulation of data on enrollment, educational attainment, and labor force status for the population 16 to 19 years old allows for calculation of the proportion of the age group who are not enrolled in school and not high school graduates or "dropouts" and an unemployment

rate for the "dropout" population. Definitions of the three topics and descriptions of the census items from which they were derived are presented in "Educational Attainment," "Employment Status," and "School Enrollment and Type of School." The published tabulations include both the civilian and U.S. Armed Forces populations, but labor force status is provided for the civilian population only. Therefore, the component labor force statuses may not add to the total lines *enrolled in school, high school graduate,* and *not high school graduate.* The difference is Armed Forces.

Comparability—The tabulation of school enrollment by labor force status is similar to that published in 1980 census reports. The 1980 census tabulation included a single data line for U.S. Armed Forces; however, enrollment, attainment, and labor force status data were shown for the civilian population only.

SCHOOL ENROLLMENT AND TYPE OF SCHOOL

Data on school enrollment were derived from answers to questionnaire item 9, which was asked of a sample of persons. Persons were classified as enrolled in school if they reported attending a "regular" public or private school or college at any time between February 1, 1990, and the time of enumeration. The question included instructions to "include only pre-kindergarten, kindergarten, elementary school, and schooling which would lead to a high school diploma or a college degree" as regular school. Enumerator instructions further specified that enrollment in a vocational trade or business school, or tutoring were not to be included unless the course would be accepted for credit at a regular elementary school, high school, or college. Persons who did not answer the enrollment question were assigned the enrollment status and type of school of a person with the same age and sex, whose residence was in the same or a nearby area.

Public and Private School—Includes persons who attended school in the reference period and indicated they were enrolled by marking one of the questionnaire categories for either "public school, public college" or "private school, private college." The enumerator instructions defined a public school as "any school or college controlled and supported by a local, municipio, commonwealth, or Federal government." Schools supported and controlled primarily by religious organizations or other private groups are defined as private. Persons who indicated both "public" and "private" are edited to the first entry, "public."

Level of School in Which Enrolled—Persons who were enrolled in school were classified as enrolled in "preprimary school," "elementary," "high school," or "college" according to their response to question 10 (years of school completed or highest degree received). Persons who were enrolled and reported completing pre-kindergarten or less were classified as enrolled in "preprimary school," which includes kindergarten. Similarly, enrolled persons who had completed at least kindergarten, but not 6th grade, were classified as enrolled in elementary school (1st to 6th grade). Enrolled persons who reported completing high school or some college or having received a post-secondary degree were classified as enrolled in "college." Enrolled persons who reported completing the twelfth grade but receiving "NO DIPLOMA" were classified as enrolled in high school. (For more information on level of school, see the discussion under "Educational Attainment.")

Comparability—School enrollment questions have been included in the census since 1910; grade attended was first asked in 1950; type of school was first asked in 1960. Before 1940, the enrollment question in various censuses referred to attendance in the preceding six months or the preceding year. In 1940, the reference was to attendance in the month preceding the census, and in the 1950 and 1970 to 1990 censuses, the question referred to attendance in the two months preceding the census date. In 1960, the reference period was between January 1 and the date of enumeration.

The age range for which enrollment data have been obtained and published has varied over the censuses. Information on enrollment was recorded for persons of all ages in 1930, 1940 and 1970 through 1990; for persons 5 to 29, in 1950; and for persons age 5 to 34, in 1960. Most of the published enrollment figures referred to persons age 5 to 20 in the 1930 census, 5 to 24 in 1940, 5 to 29 in 1950, 5 to 34 in 1960, 3 to 34 in 1970, and 3 years old and over in 1980 and 1990. This growth in the age group whose enrollment was reported reflects increased interest in the number of children in preprimary schools and in the number of older persons attending colleges and universities.

Grade of enrollment was first available in the 1950 census, where it was obtained from responses to the question on highest grade of school attended. Enrollment by grade or year from kindergarten through college could be identified. In 1970, nursery school was added to the levels of school separately identified. In 1980, nursery school was replaced by pre-kindergarten.

From 1950 to 1980, grade of enrollment was obtained from the highest grade attended in the two-part question used to measure educational attainment. (For more information, see the discussion under "Educational Attainment.") The form of the question from which level of enrollment was derived in the 1990 census was a single question on highest grade or degree completed.

Type of school was first introduced in the 1960 census, where a separate question asked the enrolled persons whether they were in a "public" or "private"

school. Since the 1970 census, the type of school was incorporated into the response categories for the enrollment question and the terms were changed to "public," "parochial," and "other private." In the 1980 census, "private, church related" and "private, not church related" replaced "parochial" and "other private." In the 1990 census, only two categories were used—"Public" and "Private."

In the 1950 and subsequent censuses, college students were enumerated where they lived while attending college, whereas in earlier censuses, they generally were enumerated at their parental homes.

Data on school enrollment were also collected and published by other Federal, commonwealth, and local government agencies. Where these data were obtained from administrative records of school systems and institutions of higher learning, they were only roughly comparable with data from population censuses because of differences in definitions and concepts, subject matter covered, time references, and enumeration methods. At the local level, the difference between the location of the institution and the residence of the student may affect the comparability of census and administrative data. Differences between the boundaries of school districts and census geographic units also may affect these comparisons.

SELF-CARE LIMITATION STATUS

The data on self-care limitation status were derived from answers to questionnaire item 20b, which was asked of a sample of persons 15 years old and over. Persons were identified as having a self-care limitation if they had a health condition that had lasted for 6 or more months and which made it difficult to take care of their own personal needs, such as dressing, bathing, or getting around inside the home.

The term "health condition" referred to both physical and mental conditions. A temporary health problem, such as a broken bone that was expected to heal normally was not considered a health condition.

Comparability—This was the first time that a question on self-care limitation was included in the census.

SEX

The data on sex were derived from answers to questionnaire item 3, which was asked of all persons. For most cases in which sex was not reported, it was determined by the appropriate entry from the person's given name and household relationship. Otherwise, sex was imputed according to the relationship to the householder and the age and marital status of the person. (For more information on imputation, see Appendix C, Accuracy of the Data.)

Sex Ratio—A measure derived by dividing the total number of males by the total number of females and multiplying by 100.

Comparability—A question on the sex of individuals has been asked of the total population in every census of Puerto Rico.

VETERAN STATUS

Data on veteran status, period of military service, and years of military service were derived from answers to questionnaire item 18, which was asked of a sample of persons.

Veteran Status—The data on veteran status were derived from responses to question 18a. For census data products, a "civilian veteran" is a person 16 years old or over who had served (even for a short time) but is not now serving on active duty in the U.S. Army, Navy, Air Force, Marine Corps, or the Coast Guard, or who served as a Merchant Marine seaman during World War II. Persons who served in the National Guard or military Reserves are classified as veterans only if they were ever called or ordered to active duty not counting the 4-6 months for initial training or yearly summer camps. All other civilians 16 years old and over are classified as nonveterans.

Period of Military Service—Persons who indicated in question 18a that they had served on active duty (civilian veterans) or were now on active duty were asked to indicate in question 18b the period or periods in which they served. Persons serving in at least one wartime period are classified in their most recent wartime period. For example, persons who served both during the Korean conflict and the post-Korean peacetime era between February 1955 and July 1964 are classified in one of the two "Korean conflict" categories. If the same person had also served during the Vietnam era, he or she would instead be included in the "Vietnam era and Korean conflict" category. The responses were edited to eliminate inconsistencies between reported period(s) of service and the age of the person and to cancel out reported combinations of periods containing unreasonable gaps (for example, a person could not serve during World War I and the Korean conflict without serving during World War II). Note that the period of service categories shown in this report are mutually exclusive.

Years of Military Service—Persons who indicated in question 18a that they had served on active duty (civilian veterans) or were now on active duty were asked to report the total number of years of active-duty service in question 18c. The data were edited for consistency with responses to question 18b (Period of Military Service) and with the age of the person.

Limitation of the Data—There may be a tendency for the following kinds of persons to report erroneously that they served on active duty in the U.S. Armed Forces: (a) persons who served in the National Guard or military Reserves but were never called to active duty; (b) civilian employees or volunteers for the USO, Red Cross, or the Department of Defense (or its predecessor Departments, War and Navy); and (c) employees of the Merchant Marine or Public Health Service. There may also be a tendency for persons to erroneously round up months to the nearest year in question 18c (for example, persons with 1 year 8 months of active duty military service may mistakenly report "2 years").

Comparability—Since census data on veterans were based on self-reported responses, they may differ from data from other sources such as administrative records of the Department of Defense. Census data may also differ from Veterans' Administration data on the benefits-eligible population, since factors determining eligibility for veterans' benefits differ from the rules for classifying veterans in the census.

The wording of the question on veteran status (18a) for 1990 was expanded from the veteran/ not veteran question in 1980 to include questions on current active duty status and service in the military Reserves and the National Guard. The expansion was intended to clarify the appropriate response for persons in the U.S. Armed Forces and for persons who served in the National Guard or military Reserve units only. For the first time in a census, service during World War II as a Merchant Marine Seaman was considered active-duty military service and persons with such service were counted as veterans. An additional period of military service, "September 1980 or later" was added in 1990. As in 1970 and 1980, persons reporting more than one period of service are shown in the most recent wartime period of service category. Question 18c (Years of Military Service) was new for 1990.

VOCATIONAL TRAINING

The data on vocational training were derived from answers to questionnaire items 21a and 21b. These questions were asked of a sample of persons 15 years old and over. Vocational training is a school program designed to prepare a person for work in a specific occupational field. Persons were counted as having vocational training if they had completed requirements for a vocational training program at a trade school, business school, hospital, or other school for occupational training.

Instructions given to enumerators distinguished vocational training from academic training and on-the-job training. Vocational training could be in such fields as carpentry, electronics, nursing or accounting if a bachelor's degree would not be granted for the training. Vocational training at a person's place of work includes programs designed to teach new skills. Instruction could be provided by a company teacher or a professional vocational educator at the company or at another location. Vocational training in high school was included if it was in an organized program of study and was intended to provide a marketable skill upon graduation. Job Corp and correspondence courses were included also.

Individual courses for personal enrichment were not classified as vocational training (for example, a single typing course compared to a business program with many courses). On-the-job training was excluded since its purpose is to provide instruction for specific job duties. Other types of training excluded from vocational training were college courses applicable towards a bachelor's degree, single courses not part of an organized program, and Armed Forces basic training.

Persons who had completed a vocational training program were asked to indicate one of the following types of school at which the training was received: business school, trade school, or junior college; high school vocational program; training program at place of work; or other school.

Comparability—The vocational training question was first asked in the 1970 census. The question was changed in 1980 to list specific types of vocational schools. In 1990 and 1980, persons who reported they had completed the requirements for a vocational training program were asked an additional question about the specific type of school where the training was received. In 1970, a different question was asked of respondents who reported they had completed a vocational training program. They were asked to designate their main field of vocational training.

WORK DISABILITY STATUS

The data on work disability were derived from answers to questionnaire item 19, which was asked of a sample of persons 15 years old and over. Persons were identified as having a work disability if they had a health condition that had lasted for 6 or more months and which limited the kind or amount of work they could do at a job or business. A person was limited in the kind of work he or she could do if the person had a health condition which restricted his or her choice of jobs. A person was limited in the amount of work if he or she was not able to work full-time. Persons with a work disability were further classified as "Prevented from working" or "Not prevented from working."

The term "health condition" referred to both physical and mental conditions. A temporary health problem, such as a broken bone that was expected to heal normally, was not considered a health condition.

Comparability—The wording of the question on work disability was the same in 1990 as in 1980. Information on work disability was first collected in 1970. In that census, the work disability question did not contain a clause restricting the definition of disability to limitations caused by a health condition that had lasted 6 or more months; however, it did contain a separate question about the duration of the disability.

WORK STATUS IN 1989

The data on work status in 1989 were derived from answers to questionnaire item 32, which was asked of a sample of persons. Persons 16 years old and over who worked 1 or more weeks according to the criteria described below are classified as "Worked in 1989." All other persons 16 years old and over are classified as "Did not work in 1989." Some tabulations showing work status in 1989 include 15 year olds; these persons, by definition, are classified as "Did not work in 1989."

Weeks Worked in 1989

The data on weeks worked in 1989 were derived from responses to questionnaire item 32b. Question 32b (Weeks Worked in 1989) was asked of persons 16 years old and over who indicated in question 32a that they worked in 1989.

The data pertain to the number of weeks during 1989 in which a person did any work for pay or profit (including paid vacation and paid sick leave) or worked without pay on a family farm or in a family business. Weeks of active service in the U.S. Armed Forces are also included.

Usual Hours Worked Per Week Worked in 1989

The data on usual hours worked per week worked in 1989 were derived from answers to questionnaire item 32c. This question was asked of persons 16 years old and over who indicated that they worked in 1989.

The data pertain to the number of hours a person usually worked during the weeks worked in 1989. The respondent was to report the number of hours worked per week in the majority of the weeks he or she worked in 1989. If the hours worked per week varied considerably during 1989, the respondent was to report an approximate average of the hours worked per week. The statistics on usual hours worked per week in 1989 are not necessarily related to the data on actual hours worked during the census reference week (question 22b).

Persons 16 years old and over who reported that they usually worked 35 or more hours each week during the weeks they worked are classified as "Usually worked full time;" persons who reported that they usually worked 1 to 34 hours are classified as "Usually worked part time."

Year-Round Full-Time Workers—All persons 16 years old and over who usually worked 35 hours or more per week for 50 to 52 weeks in 1989.

Number of Workers in Family in 1989—The term "worker" as used for these data is defined based on the criteria for Work Status in 1989.

Limitation of the Data—It is probable that the number of persons who worked in 1989 and the number of weeks worked are understated since there was some tendency for respondents to forget intermittent or short periods of employment or to exclude weeks worked without pay. There may also be a tendency for persons not to include weeks of paid vacation among their weeks worked; one result may be that the census figures may understate the number of persons who worked "50 to 52 weeks."

Comparability—The data on weeks worked collected in the 1990 census were comparable with data from the 1980, 1970, and 1960 censuses, but may not be entirely comparable with data from the 1940 and 1950 censuses. Since the 1960 census, two separate questions have been used to obtain this information. The first identified persons with any work experience during the year and, thus, indicated those persons for whom the questions on number of weeks worked applied. In 1940 and 1950, however, the questionnaires contained only a single question on number of weeks worked.

In 1970, persons responded to the question on weeks worked by indicating one of six weeks-worked intervals. In 1980 and 1990, persons were asked to enter the specific number of weeks they worked.

YEAR OF ENTRY

The data on year of entry were derived from answers to questionnaire item 8, which was asked of a sample of persons. The question, "When did this person come to Puerto Rico to stay?" was asked of persons who indicated in the question on citizenship that they were not born in Puerto Rico. (For more information, see the discussion under "Citizenship.")

The 1990 census questions, tabulations, and census data products about citizenship and year of entry include no reference to immigration. All persons who were born and resided outside Puerto Rico before becoming residents of Puerto Rico have a date of entry. Some of these persons are U.S. citizens by birth (e.g., persons born in Puerto Rico or born abroad of American parents). To avoid any possible confusion concerning the date of entry of persons who are U.S. citizens by birth, the term, "year of entry" is used in this report instead of the term "year of immigration."

Limitation of the Data—The census questions on nativity, citizenship, and year of entry were not designed to measure the degree of permanence of residence in

Puerto Rico. The phrase, "to stay" was used to obtain the year in which the person became a resident of Puerto Rico. Although the respondent was directed to indicate the year he or she entered the country "to stay," it was difficult to ensure that respondents interpreted the phrase correctly.

Comparability—A question on year of entry, (alternately called "year of immigration") was asked in each decennial census since 1910. In 1980, the question on year of entry included six arrival time intervals. The number of arrival intervals was expanded to ten in 1990. In 1980, the question on year of entry was asked only of the foreign-born population. In 1990, all persons who responded to the long-form questionnaire and were not born in Puerto Rico were to complete the question on year of entry.

HOUSING CHARACTERISTICS

LIVING QUARTERS

Living quarters are classified as either housing units or group quarters. (For more information, see the discussion of "Group Quarters" under Population Characteristics.) Usually, living quarters are in structures intended for residential use (for example, a one-family home, apartment house, hotel or motel, boarding house, or mobile home). Living quarters also may be in structures intended for nonresidential use (for example, the rooms in a warehouse where a guard lives), as well as in places such as tents, vans, shelters for the homeless, dormitories, and barracks.

Housing Units—A housing unit is a house, an apartment, a mobile home or trailer, a group of rooms or a single room occupied as separate living quarters or, if vacant, intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from outside the building or through a common hall.

The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated persons who share living arrangements. For vacant units, the criteria of separateness and direct access are applied to the intended occupants whenever possible. If that information cannot be obtained, the criteria are applied to the previous occupants.

Both occupied and vacant housing units are included in the housing unit inventory, except that recreational vehicles, boats, vans, tents, and the like are included only if they are occupied as someone's usual place of residence. Vacant mobile homes are included provided they are intended for occupancy on the site where they stand. Vacant mobile homes on dealers' sales lots, or in storage yards are excluded from the housing inventory.

If the living quarters contain 9 or more persons unrelated to the householder or person in charge (a total of 10 unrelated persons), they are classified as group quarters. If the living quarters contain eight or fewer persons unrelated to the householder or person in charge, they are classified as housing units.

Occupied Housing Units—A housing unit is classified as occupied if it is the usual place of residence of the person or group of persons living in it at the time of enumeration, or if the occupants are only temporarily absent; that is, away on vacation. If all the persons staying in the unit at the time of the census have their usual place of residence elsewhere, the unit is classified as vacant. A household includes all the persons who occupy a housing unit as their usual place of residence. By definition, the count of occupied housing units for 100-percent tabulations is the same as the count of households or householders.

Vacant Housing Units—A housing unit is vacant if no one is living in it at the time of enumeration, unless its occupants are only temporarily absent. Units temporarily occupied at the time of enumeration entirely by persons who have a usual residence elsewhere are also classified as vacant. (For more information, see discussion under "Usual Home Elsewhere.")

New units not yet occupied are classified as vacant housing units if construction has reached a point where all exterior windows and doors are installed and final usable floors are in place. Vacant units are excluded if they are open to the elements; that is, the roof, walls, windows, and/or doors no longer protect the interior from the elements, or if there is positive evidence (such as a sign on the house or in the block) that the unit is condemned or is to be demolished. Also excluded are quarters being used entirely for nonresidential purposes, such as a store or an office, or quarters used for the storage of business supplies or inventory, machinery, or agricultural products.

Hotels, Motels, Rooming Houses, Etc.—Occupied rooms or suites of rooms in hotels, motels, and similar places are classified as housing units only when occupied by permanent residents; that is, persons who consider the hotel as their usual place of residence or have no usual place of residence elsewhere. Vacant rooms or suites of rooms are classified as housing units only in those hotels, motels, and similar places in which 75 percent or more of the accommodations are occupied by permanent residents.

If any of the occupants in a rooming or boarding house live and eat separately from others in the building and have direct access, their quarters are classified as separate housing units.

Staff Living Quarters—The living quarters occupied by staff personnel within any group quarters are separate

housing units if they satisfy the housing unit criteria of separateness and direct access; otherwise, they are considered group quarters.

Comparability—The first Census of Housing in 1940 established the "dwelling unit" concept. Although the term became "housing unit" and the definition has been modified slightly in succeeding censuses, the 1990 definition is essentially comparable to previous censuses. There was no change in the housing unit definition between 1980 and 1990.

AGRICULTURAL SALES

Data on the sales of agricultural crops were obtained from questionnaire item H10b, which was asked on a sample basis at occupied one-family houses and mobile homes. Data for this item exclude units located in structures containing 2 or more units, and all vacant units. This item refers to the total amount (before taxes and expenses) received in 1989 from the sale of crops, vegetables, fruits, nuts, livestock and livestock products, and nursery and forest products, produced on "this property." Respondents new to a unit were asked to estimate total agricultural sales in 1989 even if some portion of the sales had been made by other occupants of the unit.

This item is used mainly to classify housing units as farm or nonfarm residences, not to provide detailed information on the sale of agricultural products. Detailed information on the sale of agricultural products is provided by the Census Bureau's Census of Agriculture. (For more information, see the discussion under "Farm Residence.")

AIR CONDITIONING

The data on air conditioning were obtained from questionnaire item H21, which was asked at both occupied and vacant housing units. This item was asked on a sample basis. Air conditioning is defined as the cooling of air by a refrigeration unit. It does not include evaporative coolers, fans, or blowers which are not connected to a refrigeration unit; however, it does include heat pumps. A central system is an installation which air-conditions a number of rooms. In an apartment building, such a system may cool all apartments in the building, each apartment may have its own central system, or there may be several systems, each providing central air conditioning for a group of apartments. A system with individual room controls is a central system. A room unit is an individual air conditioner which is installed in a window or an outside wall and is generally intended to cool one room, although it may sometimes be used to cool more than one room.

Comparability—Data on air conditioning were collected for the first time in the 1980 census. In 1980, these data were shown only for year-round housing units. In 1990, these data are shown for all housing units.

BATHTUB OR SHOWER

The data on bathtub or shower were obtained from questionnaire item H4b, which was asked at both occupied and vacant housing units. A bathtub or shower must be connected permanently to piped water and located inside the house, apartment, or mobile home.

Comparability—Since 1970 a separate question on bathtub or shower has been asked in Puerto Rico. In 1970 and 1980, the question referred to bathtub or shower in the building where the housing unit was located, and data were shown only for year-round housing units. In 1990, the question asks for bathtub or shower inside the unit, and the data are shown for all housing units.

BATHROOMS

The data on bathrooms were obtained from questionnaire item H17, which was asked at both occupied and vacant housing units. This item was asked on a sample basis. A complete bathroom is a room with a flush toilet, a bathtub or shower, and a wash basin with piped hot and cold or only cold water. A half-bathroom has at least a flush toilet or a bathtub or shower, but does not have all the facilities for a complete bathroom. The equipment must be inside the unit being enumerated, but does not need to be in the same room. The category "None" consists of units with no bathroom facilities.

Comparability—Similar data were collected in the 1980 census. In 1980, data on bathrooms were shown only for year-round housing units. In 1990, these data are shown for all housing units.

BEDROOMS

The data on bedrooms were obtained from questionnaire item H16, which was asked at both occupied and vacant housing units. This item was asked on a sample basis. The number of bedrooms is the count of rooms designed to be used as bedrooms; that is, the number of rooms that would be listed as bedrooms if the house or apartment were on the market for sale or for rent. Included are all rooms intended to be used as bedrooms even if they currently are being used for some other purpose. A housing unit consisting of only one room, such as a one-room efficiency apartment, is classified, by definition, as having no bedroom.

Comparability—Data on bedrooms have been collected in every census since 1960. In 1970 and 1980, data for bedrooms were shown only for year-round units. In 1990, these data are shown for all housing units. In past censuses, a room was defined as a bedroom if it was used mainly for sleeping even if also

used for other purposes. Rooms that were designed to be used as bedrooms but used mainly for other purposes were not considered to be bedrooms. A distribution of housing units by number of bedrooms calculated from data collected in a U.S. 1986 test showed virtually no differences in the two versions except in the two bedroom category, where the previous "use" definition showed a slightly lower proportion of units.

BOARDED-UP STATUS

Boarded-up status was obtained from questionnaire item C2 and was determined for all vacant units. Boarded-up units have windows and doors covered by wood, metal, or masonry to protect the interior and to prevent entry into the building. A single-unit structure, a unit in a multi-unit structure, or an entire multi-unit structure may be boarded up in this way. For certain census data products, boarded-up units are shown only for units in the "Other vacant" category. A unit classified as "Usual home elsewhere" can never be boarded up. (For more information, see the discussion under "Usual Home Elsewhere.")

Comparability—This item was first asked in the 1980 census and was shown only for year-round vacant housing units. In 1990, data are shown for all vacant housing units.

COMMERCIAL ESTABLISHMENT ON PROPERTY

The data for commercial establishment on property were obtained from questionnaire item H7b, which was asked at all occupied and vacant one family houses and mobile homes. This question is used to exclude owner-occupied one-family houses with a commercial establishment or medical office on the property from certain statistics on financial characteristics.

A commercial establishment must be easily recognizable from the outside. It will usually have a separate outside entrance and have the appearance of a business, such as a grocery store, restaurant, or barbershop. It may be either attached to the house or mobile home or be located elsewhere on the property. Those housing units in which a room is used for business or professional purposes and have no recognizable alterations to the outside are *not* considered as having a business. Medical offices are considered businesses for tabulation purposes.

Comparability—Data on commercial establishment on property have been collected since 1940.

CONDITION OF HOUSING UNIT

The data on condition of housing unit were obtained from questionnaire item H30, which was asked at both occupied and vacant housing units. This item was collected on a sample basis. It serves as an indicator of the quality of housing. The answers to this question indicate how many living quarters may not provide adequate shelter and, in their present condition, endanger the health, safety, or well-being of their occupants.

The enumerators judged the condition by observation, on the basis of instructions regarding the extent, degree and type of visible defects. The criteria dealt mainly with weather tightness, extent of disrepair, hazards to physical safety of the occupants, and inadequate or make-shift construction. Defects which would be revealed only by a more thorough inspection than is possible during a census or would be recognized only by a person with fairly thorough knowledge of construction, were not included in the standards by which condition was rated.

The enumerators were instructed to judge each unit on the basis of its own physical characteristics, regardless of the neighborhood, the attractiveness or dreariness of the unit, the degree of crowding, the housekeeping standards of the occupants, or other considerations unrelated to the physical condition.

All living quarters were classified as either of adequate or inadequate original construction. A living quarters was considered to be of adequate original construction if it was initially built with traditional materials (wood, poured concrete, etc.), and it had no serious structural deficiencies or it did not endanger the safety of the occupants. Living quarters classified as of adequate original construction were further classified as either sound, deteriorating, or dilapidated.

"Sound" housing was defined as having no defects or only slight defects of a type normally corrected in the course of regular maintenance. These defects do not affect the weather tightness of the living quarters nor do they endanger the safety or health of the occupants. Examples are: slight damage to doors or shutters; moderately rusted roof; slight wear on floors, doorsill, door frames, window sills, or window frames; small cracks in walls; and lack of paint.

"Deteriorating" housing had intermediate defects which needed repairs beyond the scope of ordinary maintenance. Intermediate defects indicated the need for repairs so that the living quarters continues to provide safe and adequate shelter. Examples include: rotted, broken, or missing material over a small area of the walls or roof; rotted or unsafe steps or balconies; deeply worn floors, door frames, or stairs; a badly rusted or leaking roof; and loose or broken shutters or doors.

A "dilapidated" unit no longer provided safe and adequate shelter. It had one or more critical defects, such as broken or missing material over a large area of the foundation, exterior walls, roof, floors, etc; a badly sagging roof, wall, or floors; extensive termite damage; or had a large number of intermediate defects.

"Inadequate original construction" applied to units built largely of makeshift or scrap materials (scrap lumber or sheet metal, packing boxes, etc.) or that had

no foundation with walls resting directly on the ground, or had a dirt floor. The term also applied to shacks, huts, sheds, tents, and similar buildings unsuitable for residential use, but used as a place of residence.

Limitation of the Data—Data on condition of housing units should be used with extreme caution. Extensive evaluation after the 1960 United States Census showed the condition ratings to be inaccurate and unreliable. Data from the 1990 Puerto Rico Content Reinterview Study will provide information on this item.

Comparability—Data on condition of housing unit have been collected since 1940. From 1940 to 1970, data on condition of housing units were presented together with plumbing facilities. In 1980, these data were shown separately and only for year-round housing units. In 1990, these data are shown for all housing units.

CONDOMINIUM FEE

The data on condominium fee were obtained from questionnaire item H29, which was asked at owner-occupied condominiums. This item was asked on a sample basis. A condominium fee normally is charged monthly to the owners of the individual condominium units by the condominium owners association to cover operating, maintenance, administrative, and improvement costs of the common property (grounds, halls, lobby, parking areas, laundry rooms, swimming pool, etc.) The costs for utilities and/ or fuels may be included in the condominium fee if the units do not have separate meters.

Data on condominium fees may include real estate tax and/ or insurance payments for the common property, but do not include real estate taxes or fire, hazard, and flood insurance for the individual unit already reported in questions H25 and H26.

Amounts reported were the regular monthly payment, even if paid by someone outside the household or remain unpaid. Costs were estimated as closely as possible when exact costs were not known.

The data from this item were added to payments for mortgages (both first and junior mortgages and home equity loans); real estate taxes; fire, hazard, and flood insurance payments; and utilities and fuels to derive "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989" for condominium owners.

Comparability—This is a new item in 1990.

CONDOMINIUM STATUS

The data on condominium housing units were obtained from questionnaire item H5, which was asked at both occupied and vacant housing units. Condominium is a type of ownership that enables a person to own an apartment or house in a development of similarly owned units and to hold a common or joint ownership in some or all of the common areas and facilities such as land, roof, hallways, entrances, elevators, swimming pool, etc. Condominiums may be single-family houses as well as units in apartment buildings. A condominium unit need not be occupied by the owner to be counted as such. A unit classified as "mobile home or trailer" or "other" (see discussion under "Units in Structure") cannot be a condominium unit.

Limitation of the Data—Testing done in the United States prior to the 1980 and 1990 census indicated that the number of condominiums may be slightly overstated. The same situation may also be true for Puerto Rico.

Comparability—In 1970, condominiums were grouped together with cooperative housing units, and the data were reported only for owner-occupied cooperatives and condominiums. Beginning in 1980, the census identified all condominium units, and the data were shown for renter-occupied and vacant-year-round condominiums as well as owner occupied. In 1970, 1980, and 1990, the question on condominiums was asked on a 100-percent basis in Puerto Rico. In 1990, the question was asked on a sample basis in the United States.

CONTRACT RENT

The data on contract rent (also referred to as "rent asked" for vacant units) were obtained from questionnaire item H9, which was asked at all occupied housing units that were rented for cash rent and all vacant housing units that were for rent at the time of enumeration.

Housing units that are renter occupied without payment of cash rent are shown separately as "No cash rent" in census data products. The unit may be owned by friends or relatives who live elsewhere and who allow occupancy without charge. Rent-free houses or apartments may be provided to compensate caretakers, ministers, tenant farmers, sharecroppers, or others.

Contract rent is the monthly rent agreed to or contracted for, regardless of any furnishings, utilities, fees, meals, or services that may be included. For vacant units, it is the monthly rent asked for the rental unit at the time of enumeration.

If the contract rent includes rent for a business unit or for living quarters occupied by another household, the respondent was instructed to report that part of the rent estimated to be for his or her unit only. Respondents were asked to report rent only for the housing unit enumerated and to exclude any rent paid for additional units or for business premises.

If a renter pays rent to the owner of a condominium or cooperative, and the condominium fee or cooperative carrying charge is also paid by the renter to the owner, the respondent was instructed to include the fee or carrying charge.

If a renter receives payments from lodgers or roomers who are listed as members of the household, the respondent was instructed to report the rent without deduction for any payments received from the lodgers or roomers. The respondent was instructed to report the rent agreed to or contracted for even if paid by someone else such as friends or relatives living elsewhere, or a church or welfare agency.

In some tabulations, contract rent is presented for all renter-occupied housing units, as well as specified renter-occupied and specified vacant-for-rent units. Specified renter-occupied and specified vacant-for-rent units exclude one-family houses on 3 or more cuerdas. (For more information on rent, see the discussion under "Gross Rent" in census products containing sample data.)

Median and Quartile Contract Rent—The median divides the rent distribution into two equal parts. Quartiles divide the rent distribution into four equal parts. In computing median and quartile contract rent, units reported as "No cash rent" are excluded. Median and quartile rent calculations are rounded to the nearest whole dollar. (For more information on medians and quartiles, see the discussion under "Derived Measures.")

Aggregate Contract Rent—To calculate aggregate contract rent, the amount assigned for the category "less than $60" is $50. The amount assigned to the category "$1,000 or more" is $1,250. Mean contract rent is rounded to the nearest whole dollar. (For more information on aggregates and means, see the discussion under "Derived Measures.")

Limitation of the Data—In the 1970 and 1980 censuses, contract rent for vacant units had high allocation rates, about 35 percent.

Comparability—Data on this item have been collected since 1930. For 1990, quartiles were added because the range of rents and values in Puerto Rico has increased in recent years. Upper and lower quartiles can be used to note large rent and value differences among various geographic areas.

COOKING FUEL

The data on cooking fuel were obtained from questionnaire item H19, which was asked at all occupied housing units. This item was asked on a sample basis. The category, "Gas," includes gas piped through underground pipes from a central system that serves the neighborhood, commonly known as utility gas; also included is bottled, tank, or LP gas stored in tanks or bottles which are refilled or exchanged when empty. The category, "Other," includes fuel oil, kerosene, gasoline, alcohol, charcoal, wood, as well as coal dust, briquettes, etc.

Comparability—Similar data were collected in 1980.

DURATION OF VACANCY

The data for duration of vacancy (also referred to as "months vacant") were obtained from questionnaire item D, which was completed by census enumerators. The statistics on duration of vacancy refer to the length of time (in months and years) between the date the last occupants moved from the unit and the time of enumeration. The data, therefore, do not provide a direct measure of the total length of time units remain vacant.

For newly constructed units which have never been occupied, the duration of vacancy is counted from the date construction was completed. For recently converted or merged units, the time is reported from the date conversion or merger was completed. Units occupied by an entire household with a usual home elsewhere are assigned to the "Less than 1 month" interval.

Comparability—Similar data have been collected since 1960.

FARM RESIDENCE

The data on farm residence were obtained from questionnaire items H10a and H10b. An occupied one-family house or mobile home is classified as a farm residence if it is either: (1) on a property of at least 3 cuerdas from which $500 or more of agricultural products were sold in 1989 or (2) on a property of 10 or more cuerdas from which at least $100 of agricultural products were sold in 1989. Group quarters and housing units that are in multi-unit buildings or vacant units are not included as farm residences.

A one-family unit occupied by a tenant household paying cash rent for land and buildings is enumerated as a farm residence only if sales of agricultural products from its yard (as opposed to the general property on which it is located) and the size of its property meet the above criteria. A one-family unit occupied by a tenant household that does not pay cash rent is enumerated as a farm residence if the remainder of the farm (including its yard) qualifies as a farm.

Farm residence is provided as an independent data item only for housing units located in rural areas. It may be derived for housing units in urban areas from the data items on number of cuerdas and sales of agricultural products on the public-use microdata sample (PUMS) files. (For more information on PUMS, see Appendix F, Data Products and User Assistance.)

The farm population consists of persons in households living in farm residences. Some persons who are counted on a property classified as a farm (including in some cases farm workers) are excluded from the farm population. Such persons include those who reside in multi-unit buildings or group quarters.

Comparability—The defining criteria for farm residence in 1990 differ from those used in the 1980 census. For 1980, a housing unit was classified as a farm if it was located on a property of: (1) 3 or more cuerdas from which any agricultural products were sold in 1979, or (2) less than 3 cuerdas from which at least $100 worth of agricultural products were sold in 1979. The 1990 definition of a farm residence differs from the definition of a farm in the Census of Agriculture.

GROSS RENT

Gross rent is the contract rent plus the estimated average monthly cost of utilities (electricity, gas, and water) and fuels (oil, charcoal, kerosene, wood, etc.) if these are paid for by the renter (or paid for the renter by someone else). Gross rent is intended to eliminate differentials which result from varying practices with respect to the inclusion of utilities and fuels as part of the rental payment. The estimated costs of oil, charcoal, and other fuels are reported on a yearly basis but are converted to monthly figures for the tabulations. Renter units occupied without payment of cash rent are shown separately as "No cash rent" in the tabulations. Gross rent is calculated on a sample basis.

Comparability—Data on gross rent have been collected since 1940 for renter-occupied housing units.

GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989

Gross rent as a percentage of household income in 1989 is a computed ratio of monthly gross rent to monthly household income (total household income in 1989 divided by 12). The ratio was computed separately for each unit and was rounded to the nearest whole percentage. Units for which no cash rent is paid and units occupied by households that reported no income or a net loss in 1989 comprise the category "Not computed."

INSURANCE FOR FIRE, HAZARD, AND FLOOD

The data on fire, hazard, and flood insurance were obtained from questionnaire item H26, which was asked at a sample of owner-occupied one-family houses, condominiums, and mobile homes. The statistics for this item refer to the annual premium for fire, hazard, and flood insurance on the property (land and buildings); that is, policies that protect the property and its contents against loss due to damage by fire, lightning, winds, hail, flood, explosion, and so on.

Liability policies are included only if they are paid with the fire, hazard, and flood insurance premiums and the amounts for fire, hazard, and flood cannot be separated. Premiums are included even if paid by someone outside the household or remain unpaid. When premiums are paid on other than a yearly basis, the premiums are converted to a yearly basis.

The payment for fire, hazard, and flood insurance is added to payments for real estate taxes, utilities, fuels, and mortgages (both first and junior mortgages and home equity loans) to derive "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989."

A separate question (H27d) determines whether insurance premiums are included in the mortgage payment to the lender(s). This makes it possible to avoid counting these premiums twice in the computations.

Comparability—Data on payment for fire and hazard insurance were collected for the first time in 1980. Flood insurance was not specifically mentioned in the wording of the question in 1980. The question was asked only at owner-occupied one-family houses. Excluded were mobile homes, condominiums, houses with a commercial establishment or medical office on the property, houses on 3 or more cuerdas, and housing units in multi-unit buildings. In 1990, the question was asked of all one-family owner-occupied houses, including houses on 3 or more cuerdas. It also was asked at mobile homes, condominiums, and one-family houses with a commercial establishment or medical office on the property.

KITCHEN FACILITIES

Data on kitchen facilities were obtained from questionnaire item H20, which was asked at both occupied and vacant housing units. A unit has complete kitchen facilities when it has all of the following: (1) an installed sink with piped water, (2) a range, cook top and convection or microwave oven, or cookstove, and (3) a refrigerator. All kitchen facilities must be located in the structure. They need not be in the same room. Portable cooking equipment is not considered a range or cookstove. An ice box is not considered to be a refrigerator.

Comparability—Data on complete kitchen facilities were collected for the first time in 1970. Earlier censuses collected data on individual components, such as kitchen sink and type of refrigeration equipment. In 1970 and 1980, data for kitchen facilities were shown only for year-round units. In 1990, data are shown for all housing units.

MORTGAGE PAYMENT

The data on mortgage payment were obtained from questionnaire item H27b, which was asked at owner occupied one-family houses, condominiums, and mobile homes. This item was asked on a sample basis. Question H27b provides the regular monthly amount required to be paid the lender for the first mortgage (deed of trust, contract to purchase, or similar debt) on the property. Amounts are included even if the payments are delinquent or paid by someone else. The amounts reported are included in the computation of "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989" for units with a mortgage.

The amounts reported include everything paid to the lender including principal and interest payments, real estate taxes, fire, hazard, and flood insurance payments, and mortgage insurance premiums. Separate questions determine whether real estate taxes and fire, hazard, and flood insurance payments are included in the mortgage payment to the lender. This makes it possible to avoid counting these components twice in the computation of "Selected Monthly Owner Costs."

Comparability—Information on mortgage payment was collected for the first time in 1980. It was collected only at owner-occupied one-family houses. Excluded were mobile homes, condominiums, houses with a commercial establishment or medical office on the property, one-family houses on 3 or more cuerdas, and housing units in multi-unit buildings. In 1990, the questions on monthly mortgage payments were asked of all owner-occupied one-family houses, including one-family houses on 3 or more cuerdas. They were also asked at mobile homes, condominiums, and one-family houses with a commercial establishment or medical office on the property.

The 1980 census obtained total regular monthly mortgage payments, including payments on second or junior mortgages, from a single question. Two questions were used in 1990; one for regular monthly payments on first mortgages, and one for regular monthly payments on second or junior mortgages or home equity loans. (For more information, see the discussion under "Second or Junior Mortgage Payment.")

MORTGAGE STATUS

The data on mortgage status were obtained from questionnaire items H27a and H28a, which were asked at owner-occupied one-family houses, condominiums, and mobile homes. "Mortgage" refers to all forms of debt where the property is pledged as security for repayment of the debt. It includes such debt instruments as deeds of trust, trust deeds, contracts to purchase, land contracts, junior mortgages and home equity loans.

A mortgage is considered a first mortgage if it has prior claim over any other mortgage or if it is the only mortgage on the property. All other mortgages, (second, third, etc.) are considered junior mortgages. A home equity loan is generally a junior mortgage. If no first mortgage is reported, but a junior mortgage or home equity loan is reported, then the loan is considered a first mortgage.

In most census data products, the tabulations for "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989" usually are shown separately for units "with a mortgage" and for units "not mortgaged." The category "not mortgaged" is comprised of housing units owned free and clear of debt.

Comparability—A question on mortgage status was included in the 1940 census, but not in the 1950, 1960, and 1970 censuses. The item was reinstated in 1980 along with a separate question dealing with the existence of second or junior mortgages. In 1980, the mortgage status questions were asked at owner-occupied one-family houses on less than 3 cuerdas. Excluded were mobile homes, condominiums, houses with a commercial establishment or medical office, houses on 3 or more cuerdas, and housing units in multi-unit buildings. In 1990, the questions were asked of all one-family owner-occupied housing units, including houses on 3 or more cuerdas. They were also asked at mobile homes, condominiums, and houses with a commercial establishment or medical office.

NUMBER OF CUERDAS

Data on number of cuerdas were obtained from questionnaire items H7a and H10a. Question H7a was asked at all occupied and vacant one-family houses and mobile homes. Question H10a was asked on a sample basis at occupied and vacant one-family houses and mobile homes.

Question H7a asks whether the house or mobile home is located on a place of 3 or more cuerdas. The intent of this item is to exclude owner-occupied and renter-occupied one-family houses on 3 or more cuerdas from the specified owner- and renter-occupied universes for value and rent tabulations.

Question H10a provides data on whether the unit is located on less than 3 cuerdas, 3 to 9 cuerdas, or 10 or more cuerdas. The main purpose of this item, in conjunction with question H10b on agricultural sales, is to identify farm units. (For more information, see the discussion under "Farm Residence.")

For both items, the land may consist of more than one tract or plot. These tracts or plots are usually adjoining; however, they may be separated by a road, creek, another piece of land, etc.

Comparability—Question H7a is similar to that asked in 1970 and 1980. This item was asked for the first time of mobile home occupants in 1990. In previous censuses, information on city or suburban lot and number of cuerdas was obtained.

PERSONS IN UNIT

This item is based on the 100-percent count of persons in occupied housing units. All persons occupying the housing unit are counted, including the householder, occupants related to the householder, and lodgers, roomers, boarders, and so forth.

The data on "persons in unit" show the number of housing units occupied by the specified number of persons. The phrase "persons in unit" is used for housing tabulations, "persons in households" for population items. Figures for "persons in unit" match those for "persons in household" for 100-percent data products. In sample products, they may differ because of the weighting process.

Median Persons in Unit—In computing median persons in unit, a whole number is used as the midpoint of an interval; thus, a unit with 4 persons is treated as an interval ranging from 3.5 to 4.5 persons. Median persons is rounded to the nearest hundredth. (For more information on medians, see the discussion under "Derived Measures.")

Persons in Occupied Housing Units—This is the total population minus those persons living in group quarters. "Persons per occupied housing unit" is computed by dividing the population living in housing units by the number of occupied housing units.

PERSONS PER ROOM

"Persons per room" is obtained by dividing the number of persons in each occupied housing unit by the number of rooms in the unit. Persons per room is rounded to the nearest hundredth. The figures shown refer, therefore, to the number of occupied housing units having the specified ratio of persons per room.

Mean Persons Per Room—This is computed by dividing persons in housing units by the aggregate number of rooms. This is intended to provide a measure of utilization. A higher mean may indicate a greater degree of utilization or crowding; a low mean may indicate underutilization. (For more information on means, see the discussion under "Derived Measures.")

PLUMBING FACILITIES

The data on plumbing facilities were obtained from questionnaire items H4a through 4d, which were asked at both occupied and vacant housing units. In Puerto Rico, complete plumbing facilities include hot and cold (or only cold) piped water, a flush toilet, and a bathtub or shower. All three facilities must be located inside the house, apartment, or mobile home, but not necessarily in the same room. Housing units are classified as lacking complete plumbing facilities when any of the three plumbing facilities are not present.

Comparability—The 1990 data on complete plumbing facilities are not strictly comparable with the 1980 data. In 1980, complete plumbing facilities were defined as hot and cold (or only cold) piped water, a bathtub or shower, and a flush toilet inside the building, for the exclusive use of the residents of the unit being enumerated. In 1990, the Census Bureau dropped the requirement of exclusive use from the definition of complete plumbing facilities. Also in 1990, the facilities must be located inside the unit. In 1970 and 1980, the data on plumbing facilities were shown only for year-round housing units. In 1990, these data are shown for all housing units.

POVERTY STATUS OF HOUSEHOLDS IN 1989

The data on poverty status of households were derived from answers to the income questions. The income items were asked on a sample basis. Households are classified below the poverty level when the total 1989 income of the family or of the nonfamily householder is below the appropriate poverty threshold. The income of persons living in the household who are unrelated to the householder is not considered when determining the poverty status of a household, nor does their presence affect the household size in determining the appropriate poverty threshold. The poverty thresholds vary depending upon three criteria: size of family, number of children, and age of the family householder or unrelated individual for one and two-persons households. (For more information, see the discussion of "Poverty Status in 1989" and "Income in 1989" under Population Characteristics.)

REAL ESTATE TAXES

The data on real estate taxes were obtained from questionnaire item H25, which was asked at owner-occupied one-family houses, condominiums, and mobile homes. The statistics from this question refer to the total amount of all real estate taxes on the entire property (land and buildings) payable in 1989.

Real estate taxes include taxes even if delinquent, unpaid, or paid by someone who is not a member of the household. However, taxes due from prior years are not included. If taxes are paid on other than a yearly basis, the payments are converted to a yearly basis.

The payment for real estate taxes is added to payments for fire, hazard, and flood insurance; utilities and fuels; and mortgages (both first and junior mortgages

and home equity loans) to derive "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989." A separate question (H27c) determines whether real estate taxes are included in the mortgage payment to the lender(s). This makes it possible to avoid counting taxes twice in the computations.

Comparability—Data for real estate taxes were collected for the first time in 1980. The question was asked only at owner-occupied one-family houses. Excluded were mobile homes or trailers, condominiums, houses with a commercial establishment or medical office on the property, houses on 3 or more cuerdas, and housing units in multi-unit buildings. In 1990, the question was asked of all one-family owner-occupied houses, including houses on 3 or more cuerdas. It also was asked at mobile homes, condominiums, and one-family houses with a commercial establishment or medical office on the property.

ROOMS

The data on rooms were obtained from questionnaire item H3, which was asked at both occupied and vacant housing units. The statistics on rooms are in terms of the number of housing units with a specified number of rooms. The intent of this question is to count the number of whole rooms used for living purposes.

For each unit, rooms include living rooms, dining rooms, kitchens, bedrooms, finished recreation rooms, enclosed porches suitable for year-round use, and lodger's rooms. Excluded are strip or pullman kitchens, bathrooms, open porches, balconies, halls, half-rooms, utility rooms, unfinished attics or basements, or other unfinished space used for storage. A partially divided room is a separate room only if there is a partition from floor to ceiling, but not if the partition consists solely of shelves or cabinets.

Median Rooms—This measure divides the room distribution into two equal parts, one-half of the cases falling below the median number of rooms and one-half above the median. In computing median rooms, the whole number is used as the midpoint of the interval; thus, the category "3 rooms" is treated as an interval ranging from 2.5 to 3.5 rooms. Median rooms is rounded to the nearest tenth. (For more information on medians, see the discussion under "Derived Measures.")

Aggregate Rooms—To calculate aggregate rooms, an arbitrary value of "10" is assigned to rooms for units falling within the terminal category, "9 or more." (For more information on aggregates and means, see the discussion under "Derived Measures.")

Comparability—Data on rooms have been collected since 1940. In 1970 and 1980, these data were shown only for year-round housing units. In 1990, these data are shown for all housing units.

SECOND OR JUNIOR MORTGAGE PAYMENT

The data on second or junior mortgage payments were obtained from questionnaire items H28a and H28b, which were asked at owner-occupied one-family houses, condominiums, and mobile homes. Question H28a asks whether a second or junior mortgage or a home equity loan exists on the property. Question H28b provides the regular monthly amount required to be paid to the lender on all second or junior mortgages and home equity loans. Amounts are included even if the payments are delinquent or paid by someone else. The amounts reported are included in the computation of "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989" for units with a mortgage.

All mortgages other than first mortgages are classified as "junior" mortgages. A second mortgage is a junior mortgage that gives the lender a claim against the property that is second to the claim of the holder of the first mortgage. Any other junior mortgage(s) would be subordinate to the second mortgage. A home equity loan is a line of credit available to the borrower that is secured by real estate. It may be placed on a property that already has a first or second mortgage, or it may be placed on a property that is owned free and clear.

If the respondents answered that no first mortgage existed, but a second mortgage did (as in the above case with a home equity loan), a computer edit assigned the unit a first mortgage and made the first mortgage monthly payment the amount reported in the second mortgage. The second mortgage data were then made "No" in question H28a and blank in question H28b.

Comparability—The 1980 census obtained total regular monthly mortgage payments, including payments on second or junior mortgages, from one single question. Two questions were used in 1990: one for regular monthly payments on first mortgages, and one for regular monthly payments on second or junior mortgages and home equity loans.

SELECTED MONTHLY OWNER COSTS

The data on selected monthly owner costs were obtained from questionnaire items H24 through H29 for a sample of owner-occupied one-family houses, condominiums, and mobile homes. Selected monthly owner costs is the sum of payments for mortgages, deeds of trust, contracts to purchase, or similar debts on the property (including payments for the first mortgage, second or junior mortgages, and home equity loans); real estate taxes; fire, hazard, and flood insurance on the property; utilities (electricity, gas, and water); and fuels (oil, charcoal, kerosene, wood, etc.). It also includes, where appropriate, the monthly condominium fee for condominiums.

In certain tabulations, selected monthly owner costs are presented separately for specified owner-occupied housing units (owner-occupied one-family houses on fewer than 3 cuerdas without a commercial establishment or medical office on the property), and owner-occupied condominiums. Data usually are shown separately for units "with a mortgage" and for units "not mortgaged."

Median Selected Monthly Owner Costs—This measure is rounded to the nearest whole dollar.

Comparability—The components of selected monthly owner costs were collected for the first time in 1980. The 1990 tabulations of selected monthly owner costs for specified owner-occupied housing units are virtually identical to 1980, the primary difference was the amounts of the first and second mortgages were collected in separate questions in 1990, while the amounts were collected in a single question in 1980. The component parts of the item were tabulated for condominiums for the first time in 1990.

SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989

The information on selected monthly owner costs as a percentage of household income in 1989 is the computed ratio of selected monthly owner costs to monthly household income in 1989. The ratio was computed separately for each unit and rounded to the nearest whole percentage. The data are tabulated separately for specified owner-occupied units, and condominiums.

Separate distributions are often shown for units "with a mortgage" and for units "not mortgaged." Units occupied by households reporting no income or a net loss in 1989 are included in the "not computed" category. (For more information, see the discussion under "Selected Monthly Owner Costs.")

Comparability—The components of selected monthly owner costs were collected for the first time in 1980. The tabulations of "Selected Monthly Owner Costs as a Percentage of Household Income in 1989" for specified owner-occupied housing units are comparable to 1980.

SEWAGE DISPOSAL

The data on sewage disposal were obtained from questionnaire item H15, which was asked at both occupied and vacant housing units. This item was asked on a sample basis. Housing units are either connected to a public sewer, to a septic tank or cesspool, or they dispose of sewage by other means. In Puerto Rico, a public sewer is part of the Aqueduct and Sewer Authority System which operates under the commonwealth government. A housing unit is considered to be connected to a septic tank or cesspool when the unit is provided with an underground pit or tank for sewage disposal. The category, "Other means," includes housing units which dispose of sewage in some other way.

Comparability—Data on sewage disposal have been collected since 1940. In 1970 and 1980, data were shown only for year-round housing units. In 1990, data are shown for all housing units.

SOURCE OF WATER

The data on source of water were obtained from questionnaire item H14, which was asked at both occupied and vacant housing units. This item was asked on a sample basis. Housing units may receive their water supply from a number of sources. A common source supplying water to five or more units is classified as a "Public system". In a majority of cases in Puerto Rico, the water is supplied by the Aqueduct and Sewer Authority System, but it also may be obtained from a well which supplies water to five or more housing units. If the water is supplied from a well serving four or fewer housing units, the units are classified as having water supplied by an individual well. A source of water may be "A cistern, tanks, or drums" in which rain water is collected. The category "A spring or some other source..." includes water obtained from springs, creeks, rivers, lakes, etc.

Comparability—Data on source of water have been collected since 1940. In 1970 and 1980, data were shown only for year-round housing units. In 1990, data are shown for all housing units.

TELEPHONE IN HOUSING UNIT

The data on telephones were obtained from questionnaire item H22, which was asked at occupied housing units. This item was asked on a sample basis. A telephone must be inside the house or apartment for the unit to be classified as having a telephone. Units where the respondent uses a telephone located inside the building but not in the respondent's living quarters are classified as having no telephone.

Comparability—Data on telephones in 1980 are comparable to 1990. The 1960 and 1970 censuses collected data on telephone availability. A unit was classified as having a telephone available if there was a telephone number on which occupants of the unit could be reached. The telephone could have been in another unit, in a common hall, or outside the building.

TENURE

The data for tenure were obtained from questionnaire item H6, which was asked at all occupied housing units. All occupied housing units are classified as either owner occupied or renter occupied.

Owner Occupied—A housing unit is owner occupied if the owner or co-owner lives in the unit even if it is mortgaged or not fully paid for. The owner or co-owner must live in the unit and usually is the person listed in column 1 of the questionnaire. The unit is "Owned by you or someone in this household with a mortgage or loan" if it is being purchased with a mortgage or some other debt arrangement such as a deed of trust, trust deed, contract to purchase, land contract, or purchase agreement. The unit is also considered owned with a mortgage if it is built on leased land and there is a mortgage on the unit.

A housing unit is "Owned by you or someone in this household free and clear (without a mortgage)" if there is no mortgage or other similar debt on the house, apartment, or mobile home including units built on leased land if the unit is owned outright without a mortgage. Although owner-occupied housing units are divided between mortgaged and owned free and clear on the questionnaire. census data products containing 100-percent data show only total owner-occupied counts. More extensive mortgage information was collected on the long-form questionnaire and are shown in census products containing sample data.

Renter Occupied—All occupied housing units which are not owner occupied, whether they are rented for cash rent or occupied without payment of cash rent, are classified as renter occupied. "No cash rent" units are separately identified in the rent tabulations. Such units are generally provided free by friends or relatives or in exchange for services such as a resident manager, caretaker, minister, or tenant farmer. Housing units on military bases also are classified in the "No cash rent" category.

"Rented for cash rent" includes units in continuing care, sometimes called life care arrangements. These arrangements usually involve a contract between one or more individuals and a health services provider guaranteeing the individual shelter, usually a house or apartment, and services, such as meals or transportation to shopping or recreation.

Comparability—Data on tenure have been collected since 1910. In 1970, the question on tenure also included a category for condominium and cooperative ownership. In 1980, condominium units and cooperatives were dropped from the tenure item, and since 1980, only condominium units are identified in a separate question.

For 1990, the response categories were expanded to allow the respondent to report whether the unit was owned with a mortgage or free and clear (without a mortgage). The distinction between units owned with a mortgage and units owned free and clear was added in 1990 to improve the count of owner-occupied units. Research after the 1980 census indicated some respondents did not consider their units owned if they had a mortgage.

TOILET FACILITIES

The data on toilet facilities were obtained from questionnaire items H4c and H4d, which were asked at both occupied and vacant housing units. A flush toilet is connected to piped water and is emptied into a main sewer, a septic tank or a cesspool.

Comparability—Since 1940, a separate question on presence of toilet facilities has been asked in Puerto Rico. In 1970 and 1980, the question referred to toilet facilities in the building where the unit was located. In 1990, the question asked for toilet facilities inside the unit. For the three censuses, if the unit did not have a flush toilet, the respondents were asked to identify the type of toilet facilities they had. In 1970, only a sample of the units were asked to provide that identification. In 1970 and 1980, data on toilet facilities were shown only for year-round housing units. In 1990, these data are shown for all housing units.

TYPE OF CONSTRUCTION

The data on type of construction were obtained from questionnaire item H13, which was asked at all housing units. This item was asked on a sample basis. Housing units were classified according to the construction of the major part of the structure. Concrete walls referred to walls of poured concrete, concrete blocks, or stone. Units in structure with concrete walls were classified by type of roof over the main part of the structure: (1) "With concrete slab roof" or (2) "With wood frame roof." A concrete slab roof may be covered with waterproof roofing materials. A wood frame roof may be covered by sheet metal, wood with asphalt shingles, or other materials.

In units with wood frame walls, the basic supporting material of the outer walls is wood, which may be covered with wood boards, plywood, or other materials. Units with wood frame walls were classified by type of foundation:
(1) "With concrete foundation" or (2) "With wood stilt foundation." A concrete foundation most commonly is poured concrete or concrete blocks; it may be stone or concrete posts or columns. A wood stilt foundation ordinarily consists of wooden posts. "Mixed concrete and wood walls" referred to outer walls with concrete

and wood. "Other type of construction" is anything not described above. It includes makeshift construction and buildings of mixed types of constructions.

Comparability—Similar data have been collected since 1940. The 1940 and 1950 censuses used the term "exterior materials." Beginning in 1960, the term was changed to "type of construction." In 1970 and 1980, these data were shown only for year-round housing units. In 1990, these data are shown for all housing units.

TYPE OF WATER HEATER

The data on type of water heater were obtained from questionnaire item H18, which was asked at occupied housing units. This item was asked on a sample basis. An electric tank-type water heater stores hot water which can be used in the kitchen sink, bathtub or shower, or in the laundry room. A shower water heater is an electrical device that provides hot water only in the shower. A solar water heater is a system that utilizes the energy available in sunlight to gain and store heat and can provide hot water at the kitchen sink, bathtub or shower, or at the laundry room.

Comparability—Data on energy used by tank-type water heaters were collected in the 1980 census. The 1980 data are not comparable to the 1990 data.

UNITS IN STRUCTURE

The data on units in structure (also referred to as "type of structure") were obtained from questionnaire item H2, which was asked at all housing units. A structure is a separate building that either has open spaces on all sides or is separated from other structures by dividing walls that extend from ground to roof. In determining the number of units in a structure, all housing units, both occupied and vacant, are counted. Stores or office space are excluded.

The statistics are presented for the number of housing units in structures of specified type and size, not for the number of residential buildings.

1-Unit, Detached—This is a 1-unit structure detached from any other structure; that is, with open space on all four sides. Such structures are considered detached even if they have an adjoining shed or garage. A one-family house which contains a business is considered detached as long as the building has open space on all four sides. Mobile homes or trailers to which one or more permanent rooms have been added or built are also included.

1-Unit, Attached—This is a 1-unit structure which has one or more walls extending from ground to roof separating it from adjoining structures. In row houses (sometimes called townhouses), double houses, or houses attached to nonresidential structures, each house is a separate, attached structure if the dividing or common wall goes from ground to roof.

2 or More Units—These are units in structures containing 2 or more housing units, further categorized as units in structures with 2, 3 or 4, 5 to 9, 10 to 19, 20 to 49, and 50 or more units.

Mobile Home or Trailer—Both occupied and vacant mobile homes to which no permanent rooms have been added are counted in this category. Mobile homes or trailers used only for business purposes or for extra sleeping space and mobile homes or trailers for sale on a dealer's lot or in storage are not counted in the housing inventory.

Other—This category is for any living quarters occupied as a housing unit that does not fit the previous categories. Examples that fit this category are houseboats, campers, and vans.

Comparability—Data on units in structure have been collected since 1940 and on mobile homes and trailers since 1950. In 1970 and 1980, these data were shown only for year-round housing units. In 1990, these data are shown for all housing units. The 1980 category, "Boat, tent, van, etc." was replaced in 1990 by the category, "Other." In some areas, the proportion of units classified as "Other" is far larger than the number of units that were classified as "Boat, tent, van, etc." in 1980.

USUAL HOME ELSEWHERE

The data for usual home elsewhere were obtained from questionnaire item E, which was completed by census employees. A housing unit temporarily occupied at the time of enumeration entirely by persons with a usual residence elsewhere is classified as vacant. The occupants are classified as having a "Usual home elsewhere" and are counted at the address of their usual place of residence. Typical examples are people in a vacation home, persons renting living quarters temporarily for work, and migrant workers.

Limitation of the Data—Evidence from previous censuses suggests that in some areas enumerators marked units as "vacant—usual home elsewhere" when they should have marked "vacant—regular."

Comparability—Data for usual home elsewhere were tabulated for the first time in 1980.

UTILITIES

The data on utility costs were obtained from questionnaire items H24a through H24d, which were asked of occupied housing units. These items were asked on a sample basis.

Questions H24a through H24c asked for the monthly cost of utilities (electricity, gas, water). Question H24d asked for the yearly costs for other fuels (oil, charcoal, wood, kerosene, etc.). In the tabulations, this yearly amount is divided by 12 to derive the average monthly cost and are then included in the computation of "Gross Rent," "Gross Rent as a Percentage of Household Income in 1989," "Selected Monthly Owner Costs," and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989."

Costs are recorded if paid by or billed to occupants, a welfare agency, relatives, or friends. Costs that are paid by landlords, included in the rent payment, or included in condominium or cooperative fees are excluded.

Limitation of the Data—Research has shown that respondents tended to overstate their expenses for electricity and gas when compared to utility company records. There is some evidence that this overstatement is reduced when yearly costs are asked rather than monthly costs. Caution should be exercised in using these data for direct analysis because costs are not reported for certain kinds of units such as renter-occupied units with all utilities included in the rent and owner-occupied condominium units with utilities included in the condominium fee.

Comparability—The data on utility costs have been collected since 1980 for owner-occupied housing units, and since 1940 for renter-occupied housing units.

VACANCY STATUS

The data on vacancy status were obtained from questionnaire item C1, which was completed by census enumerators. Vacancy status and other characteristics of vacant units were determined by enumerators obtaining information from landlords, owners, neighbors, rental agents, and others. Vacant units are subdivided according to their housing market classification as follows:

For Rent—These are vacant units offered "for rent" and vacant units offered either "for rent or for sale."

For Sale Only—These are vacant units being offered "for sale only," including units in cooperatives and condominium projects if the individual units are offered "for sale only."

Rented or Sold, Not Occupied—If any money rent has been paid or agreed upon but the new renter has not moved in as of the date of enumeration, or if the unit has recently been sold but the new owner has not yet moved in, the vacant unit is classified as "rented or sold, not occupied."

For Seasonal, Recreational, or Occasional Use—These are vacant units used or intended for use only in certain seasons or for weekend or other occasional use throughout the year. Seasonal units include those used for summer or winter sports or recreation, such as beach cottages and hunting cabins. Interval ownership units, sometimes called shared ownership or time-sharing condominiums, also are included here.

For Migrant Workers—These include vacant units intended for occupancy by migratory workers employed in farm work during the crop season. (Work in a cannery, a freezer plant, or a food processing plant is not farm work.)

Other Vacant—If a vacant unit does not fall into any of the classifications specified above, it is classified as "other vacant." For example, this category includes units held for occupancy by a caretaker or janitor, and units held for personal reasons of the owner.

Homeowner Vacancy Rate—This is the percentage relationship between the number of vacant units for sale and the total homeowner inventory. It is computed by dividing the number of vacant units for sale only by the sum of the owner-occupied units and the number of vacant units that are for sale only.

Rental Vacancy Rate—This is the percentage relationship of the number of vacant units for rent to the total rental inventory. It is computed by dividing the number of vacant units for rent by the sum of the renter-occupied units and the number of vacant units for rent.

Comparability—Data on vacancy status have been collected since 1940. For 1990, the category, "seasonal/ recreational/ occasional use" combined vacant units classified in 1980 as "seasonal" and "held for occasional use." Also, in 1970 and 1980, housing characteristics were generally presented only for year-round units. In 1990, housing characteristics are shown for all housing units.

VALUE

The data on value (also referred to as "price asked" for vacant units) were obtained from questionnaire item H8, which was asked at housing units that were owned, being bought, or vacant for sale at the time of enumeration. Value is the respondent's estimate of how much the property (house and lot, mobile home and lot, or condominium unit) would sell for if it were for sale. If the house or mobile home is owned or being bought, but the land on which it sits is not, the respondent was asked to estimate the combined value of the house or mobile home and the land. For vacant units, value is the price asked for the property.

Value is tabulated separately for all owner-occupied and vacant-for-sale-only housing units, owner-occupied and vacant-for-sale mobile homes or trailers, and specified owner-occupied and specified vacant-for-sale-only

housing units. Specified owner-occupied and specified vacant-for-sale-only housing units include only one-family houses on less than 3 cuerdas without a commercial establishment or medical office on the property. The data for "specified" units exclude mobile homes, houses with a commercial establishment or medical office, houses on 3 or more cuerdas, and housing units in multi-unit buildings. A cuerda is approximately 0.97 acres.

Median and Quartile Value—The median divides the value distribution into two equal parts. Quartiles divide the value distribution into four equal parts. These measures are rounded to the nearest hundred dollars. (For more information on medians and quartiles, see the discussion under "Derived Measures.")

Aggregate Value—To calculate aggregate value, the amount assigned for the category "Less than $10,000" is $9,000. The amount assigned to the category "$500,000 or more" is $600,000. Mean value is rounded to the nearest hundred dollars. (For more information on aggregates and means, see the discussion under "Derived Measures.")

Comparability—In 1980, value was asked only at owner-occupied or vacant-for-sale one-family houses on less than 3 cuerdas with no commercial establishment or medical office on the property and at all owner-occupied or vacant-for-sale condominium housing units. Mobile homes were excluded. Value data were presented for specified owner-occupied housing units, specified vacant-for-sale-only housing units, and owner-occupied condominium housing units.

In 1990, the question was asked at all owner-occupied or vacant-for-sale-only housing units with no exclusions. For 1990, quartiles have been added because the range of values and rents in Puerto Rico has increased in recent years. Upper and lower quartiles can be used to note large value and rent differences among various geographic areas.

VEHICLES AVAILABLE

The data on vehicles available were obtained from questionnaire item H23, which was asked at occupied housing units. This item was asked on a sample basis. These data show the number of households with a specified number of passenger cars, vans, and pickup or panel trucks of one-ton capacity or less kept at home and available for the use of household members. Vehicles rented or leased for one month or more, company vehicles, and police and government vehicles are included if kept at home and used for nonbusiness purposes. Dismantled or immobile vehicles are excluded. Vehicles kept at home but used only for business purposes also are excluded.

Vehicles Per Household—This is computed by dividing aggregate vehicles available by the number of occupied housing units.

Limitation of the Data—The 1980 census evaluations showed that the number of automobiles was slightly overreported; the number of vans and trucks slightly underreported. The statistics do not measure the number of vehicles privately owned or the number of households owning vehicles.

Comparability—Data on automobiles available were collected from 1960 to 1980. In 1980, a separate question also was asked on the number of trucks and vans. The data on automobiles and trucks and vans were presented separately and also as a combined vehicles available tabulation. The 1990 data are comparable to the 1980 vehicles available tabulations.

WATER SUPPLY

The data on water supply (also referred to as "piped water") were obtained from questionnaire item H4a, which was asked at both occupied and vacant housing units. Piped water means a supply of water is available at the sink, wash basin, bathtub, or shower.

Comparability—Since 1940, a separate question on piped water has been asked in Puerto Rico. In 1970 and 1980, the question referred to piped water in the building where the unit was located. In 1990, the question asked for piped water inside the unit. In 1970 and 1980, data on piped water were shown only for year-round housing units. In 1990, these data are shown for all housing units.

YEAR HOUSEHOLDER MOVED INTO UNIT

The data on year householder moved into unit were obtained from questionnaire item H11, which was asked at occupied housing units. This item was asked on a sample basis. These data refer to the year of the latest move by the householder. If a householder moved back into a housing unit he or she previously occupied, the year of the latest move was reported. If the householder moved from one apartment to another within the same building, the year the householder moved into the present apartment was reported. The intent is to establish the year the present occupancy by the householder began. The year that the householder moved in is not necessarily the same year other members of the household moved, although in the great majority of cases an entire household moves at the same time.

Comparability—In 1960 and 1970, this question was asked of every person and included in population reports. This item in housing tabulations refers to the year the householder moved in. In 1980 and 1990, the question was asked only of the householder.

YEAR STRUCTURE BUILT

The data on year structure built were obtained from questionnaire item H12, which was asked at both occupied and vacant housing units. This item was asked on a sample basis. Data on year structure built refer to when the building was first constructed, not when it was remodeled, added to, or converted. For housing units under construction that met the housing unit definition—that is, all exterior windows, doors, and final usable floors were in place—the category "1989 or March 1990" was used. For a houseboat or a mobile home or trailer, the manufacturer's model year was assumed to be the year built. The figures shown in census data products relate to the number of units built during the specified periods that were still in existence at the time of enumeration.

Median Year Structure Built—The median divides the distribution into two equal parts. The median is rounded to the nearest calendar year. Median age of housing can be obtained by subtracting median year structure built from 1990. For example, if the median year structure built is 1957, the median age of housing in that area is 33 years (1990 minus 1957).

Limitation of the Data—Data on year structure built are more susceptible to errors of response and nonreporting than data on many other items because respondents must rely on their memory or on estimates by persons who have lived in the neighborhood a long time. Available evidence indicates there is underreporting in the older-year-structure- built categories, especially "Built in 1939 or earlier." The introduction of the "Don't know" category (see the discussion on "Comparability") may have resulted in relatively higher allocation rates. Data users should refer to the discussion in Appendix C, Accuracy of the Data, and to the allocation tables.

Comparability—Data on year structure built were collected for the first time in the 1940 census. Since then, the response categories have been modified to accommodate the 10-year period between each census. In 1990, the category, "Don't Know," was added in an effort to minimize the response error mentioned in the paragraph above on limitation of the data.

DERIVED MEASURES

Census data products include various derived measures, such as medians, means, and percentages, as well as certain rates and ratios. Derived measures that round to less than 0.1 are not shown but indicated as zero. In printed reports, zero is indicated by a dash (–).

Interpolation

Interpolation frequently is used in calculating medians or quartiles based on interval data and in approximating standard errors from tables. Linear interpolation is used to estimate values of a function between two known values. "Pareto interpolation" is an alternative to linear interpolation. It is used by the Census Bureau in calculating median income within intervals wider than $2,500. In Pareto interpolation, the median is derived by interpolating between the logarithms of the upper and lower income limits of the median category.

Mean

This measure represents an arithmetic average of a set of values. It is derived by dividing the sum of a group of numerical items (or aggregate) by the total number of items. Aggregates are used in computing mean values. For example, mean family income is obtained by dividing the aggregate of all income reported by persons in families by the total number of families. (Additional information on means and aggregates is included in the separate explanations of many population and housing subjects.)

Median

This measure represents the middle value in a distribution. The median divides the total frequency into two equal parts: one-half of the cases fall below the median and one-half of the cases exceed the median. The median is computed on the basis of the distribution as tabulated, which is sometimes more detailed than the distribution shown in specific census publications and other data products.

In reports, if the median falls within the upper interval of the tabulation distribution, the median is shown as the initial value of the interval followed by a plus sign (+); if within the lower interval, the median is shown as the upper value of the category followed by a minus sign (–). For summary tape files, if the median falls within the upper or lower interval, it is set to a specified value. (Additional information on medians is included in the separate explanations of many population and housing subjects.)

Percentages, Rates, and Ratios

These measures are frequently presented in census products to compare two numbers or two sets of measurements. These comparisons are made in two ways:
(1) subtraction, which provides an absolute measure of the difference between two items, and (2) the quotient of two numbers, which provides a relative measure of difference.

Quartile

This measure divides a distribution into four equal parts. The first quartile (or lower quartile) is the value that defines the upper limit of the lowest one-quarter of

the cases. The second quartile is the median. The third quartile (or upper quartile) defines the lower limit of the upper one-quarter of the cases in the distribution. The difference between the upper and lower quartiles is called the interquartile range. This interquartile range is less affected by wide variations than is the mean. Quartiles are presented for certain financial characteristics such as housing value and rent.

APPENDIX C.
Accuracy of the Data

CONTENTS

Confidentiality of the Data C–1
Editing of Unacceptable Data C–7
Errors in the Data C–1
Estimation Procedure C–5
Sample Design C–1

INTRODUCTION

The data contained in this data product are based on the 1990 census sample. The data are estimates of the actual figures that would have been obtained from a complete count. Estimates derived from a sample are expected to be different from the 100-percent figures because they are subject to sampling and nonsampling errors. Sampling error in data arises from the selection of persons and housing units to be included in the sample. Nonsampling error affects both sample and 100-percent data, and is introduced as a result of errors that may occur during the collection and processing phases of the census. Provided below is a detailed discussion of both types of errors and a description of the estimation procedures.

SAMPLE DESIGN

Every person and housing unit in Puerto Rico was asked certain basic demographic and housing questions (for example, age, marital status, housing value, or rent). A sample of these persons and housing units was asked more detailed questions about such items as income, occupation, and housing costs in addition to the basic demographic and housing information. The primary sampling unit for the 1990 census was the housing unit, including all occupants. For persons living in group quarters, the sampling unit was the person. Persons in group quarters were sampled at a 1-in-6 rate.

All of Puerto Rico was enumerated by the list/ enumerate method. Each enumerator was given a blank address register with designated sample lines. Beginning about Census Day, the enumerator systematically canvassed an assigned area and listed all housing units in the address register in the order they were encountered. Completed 100-percent questionnaires were collected or filled out through a personal interview by enumerators. All sample questionnaires or long forms were administered by personal visits. All housing units in Puerto Rico were sampled at a 1-in-6 sampling rate.

CONFIDENTIALITY OF THE DATA

To maintain the confidentiality required by law (Title 13, United States Code), the Bureau of the Census applies a confidentiality edit to the 1990 census data to assure that published data do not disclose information about specific individuals, households, or housing units. As a result, a small amount of uncertainty is introduced into the estimates of census characteristics. The sample itself provides adequate protection for most areas for which sample data are published since the resulting data are estimates of the actual counts; however, small areas require more protection. The edit is controlled so that the basic structure of the data is preserved.

The confidentiality edit is implemented by selecting a small subset of individual households from the internal sample data files and blanking a subset of the data items on these household records. Responses to those data items were then imputed using the same imputation procedures that were used for nonresponse. A larger subset of households is selected for the confidentiality edit for small areas to provide greater protection for these areas. The editing process was implemented in such a way that the quality and usefulness of the data were preserved.

ERRORS IN THE DATA

Since statistics in this data product are based on a sample, they may differ somewhat from 100-percent figures that would have been obtained if all housing units, persons within those housing units, and persons living in group quarters had been enumerated using the same questionnaires, instructions, enumerators, etc. The sample estimate also would differ from other samples of housing units, persons within those housing units, and persons living in group quarters. The deviation of a sample estimate from the average of all possible samples is called the sampling error. The standard error of a sample estimate is a measure of the variation among the estimates from all the possible samples and thus is a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples. The sample estimate and its estimated standard error permit the construction of interval estimates with prescribed confidence that the interval includes the average result of all possible samples. Described below is the method of calculating standard errors and confidence intervals for the data in this product.

In addition to the variability which arises from the sampling procedures, both sample data and 100-percent data are subject to nonsampling error. Nonsampling error may be introduced during any of the various complex operations used to collect and process census data. For example, operations such as editing, reviewing, or handling questionnaires may introduce error into the data. A detailed discussion of the sources of nonsampling error is given in the section on "Control of Nonsampling Error" in this appendix.

Nonsampling error may affect the data in two ways. Errors that are introduced randomly will increase the variability of the data and should therefore be reflected in the standard error. Errors that tend to be consistent in one direction will make both sample and 100-percent data biased in that direction. For example, if respondents consistently tend to underreport their income, then the resulting counts of households or families by income category will tend to be understated for the higher income categories and overstated for the lower income categories. Such biases are not reflected in the standard error.

Calculation of Standard Errors

Totals and Percentages—Tables A through C contain the information necessary to calculate the standard errors of sample estimates in this data product. To calculate the standard error, it is necessary to know the basic standard error for the characteristic (given in table A or B) that would result under a simple random sample design (of persons, households, or housing units) and estimation technique; the design factor for the particular characteristic estimated (given in table C); and the number of persons or housing units in the tabulation area and the percent of these in the sample. For machine-readable products, the percent-in-sample is included in a data matrix on the file for each tabulation area. In printed reports, the percent-in-sample is provided in data tables at the end of the statistical tables that compose the report. The design factors reflect the effects of the actual sample design and complex ratio estimation procedure used for the 1990 census.

The steps given below should be used to calculate the standard error of an estimate of a total or a percentage contained in this product. A percentage is defined here as a ratio of a numerator to a denominator where the numerator is a subset of the denominator.

1. Obtain the standard error from table A or B (or use the formula given below the table) for the estimated total or percentage, respectively.

2. Find the geographic area to which the estimate applies in the appropriate percent-in-sample table or appropriate matrix, and obtain the person or housing unit "percent-in-sample" figure for this area. Use the person "percent-in-sample" figure for person and family characteristics. Use the housing unit "percent-in-sample" figure for housing unit characteristics.

3. Use table C to obtain the design factor for the characteristic (for example, employment status, school enrollment) and the range that contains the percent- in-sample with which you are working. Multiply the basic standard error by this factor.

The unadjusted standard errors of zero estimates or of very small estimated totals or percentages will approach zero. This is also the case for very large percentages or estimated totals that are close to the size of the tabulation areas to which they correspond. Nevertheless, these estimated totals and percentages still are subject to sampling and nonsampling variability, and an estimated standard error of zero (or a very small standard error) is not appropriate. For estimated percentages that are less than 2 or greater than 98, use the basic standard errors in table B that appear in the "2 or 98" row. For an estimated total that is less than 50 or within 50 of the total size of the tabulation area, use a basic standard error of 16.

An illustration of the use of the tables is given in the section entitled "Use of Tables to Compute Standard Errors."

Sums and Differences—The standard errors estimated from these tables are not directly applicable to sums of and differences between two sample estimates. To estimate the standard error of a sum or difference, the tables are to be used somewhat differently in the following three situations:

1. For the sum of or difference between a sample estimate and a 100-percent value, use the standard error of the sample estimate. The complete count value is not subject to sampling error.

2. For the sum of or difference between two sample estimates, the appropriate standard error is approximately the square root of the sum of the two individual standard errors squared; that is, for standard errors:

$SE_{\hat{X}}$ and $SE_{\hat{Y}}$ of estimates $\hat{X}$ and $\hat{Y}$:

$$SE_{(\hat{X}+\hat{Y})} = SE_{(\hat{X}-\hat{Y})} = \sqrt{(SE_{\hat{X}})^2+(SE_{\hat{Y}})^2}$$

This method, however, will underestimate (overestimate) the standard error if the two items in a sum are highly positively (negatively) correlated or if the two items in a difference are highly negatively (positively) correlated. This method may also be used for the difference between (or

sum of) sample estimates from two censuses or from a census sample and another survey. The standard error for estimates not based on the 1990 census sample must be obtained from an appropriate source outside of this appendix.

3. For the differences between two estimates, one of which is a subclass of the other, use the tables directly where the calculated difference is the estimate of interest.

Ratios—Frequently, the statistic of interest is the ratio of two variables, where the numerator is not a subset of the denominator. For example, the ratio of teachers to students in public elementary schools. The standard error of the ratio between two sample estimates is estimated as follows:

1. If the ratio is a proportion, then follow the procedure outlined for "Totals and Percentages."

2. If the ratio is not a proportion, then approximate the standard error using the formula below.

$$SE_{(\hat{X}/\hat{Y})} = \frac{\hat{X}}{\hat{Y}}\sqrt{\frac{(SE_{\hat{X}})^2}{\hat{X}^2} + \frac{(SE_{\hat{Y}})^2}{\hat{Y}^2}}$$

Medians—For the standard error of the median of a characteristic, it is necessary to examine the distribution from which the median is derived, as the size of the base and the distribution itself affect the standard error. An approximate method is given here. As the first step, compute one-half of the number on which the median is based (refer to this result as N/2). Treat N/2 as if it were an ordinary estimate and obtain its standard error as instructed above. Compute the desired confidence interval about N/2. Starting with the lowest value of the characteristic, cumulate the frequencies in each category of the characteristic until the sum equals or first exceeds the lower limit of the confidence interval about N/2. By linear interpolation, obtain a value of the characteristic corresponding to this sum. This is the lower limit of the confidence interval of the median. In a similar manner, continue cumulating frequencies until the sum equals or exceeds the count in excess of the upper limit of the interval about N/2. Interpolate as before to obtain the upper limit of the confidence interval for the estimated median.

When interpolation is required in the upper open-ended interval of a distribution to obtain a confidence bound, use 1.5 times the lower limit of the open-ended confidence interval as the upper limit of the open-ended interval.

Confidence Intervals

A sample estimate and its estimated standard error may be used to construct confidence intervals about the estimate. These intervals are ranges that will contain the average value of the estimated characteristic that results over all possible samples, with a known probability. For example, if all possible samples that could result under the 1990 census sample design were independently selected and surveyed under the same conditions, and if the estimate and its estimated standard error were calculated for each of these samples, then:

1. Approximately 68 percent of the intervals from one estimated standard error below the estimate to one estimated standard error above the estimate would contain the average result from all possible samples;

2. Approximately 90 percent of the intervals from 1.645 times the estimated standard error below the estimate to 1.645 times the estimated standard error above the estimate would contain the average result from all possible samples.

3. Approximately 95 percent of the intervals from two estimated standard errors below the estimate to two estimated standard errors above the estimate would contain the average result from all possible samples.

The intervals are referred to as 68 percent, 90 percent, and 95 percent confidence intervals, respectively.

The average value of the estimated characteristic that could be derived from all possible samples is or is not contained in any particular computed interval. Thus, we cannot make the statement that the average value has a certain probability of falling between the limits of the calculated confidence interval. Rather, one can say with a specified probability of confidence that the calculated confidence interval includes the average estimate from all possible samples (approximately the 100-percent value).

Confidence intervals also may be constructed for the ratio, sum of, or difference between two sample figures. This is done by first computing the ratio, sum, or difference, then obtaining the standard error of the ratio, sum, or difference (using the formulas given earlier), and finally forming a confidence interval for this estimated ratio, sum, or difference as above. One can then say with specified confidence that this interval includes the ratio, sum, or difference that would have been obtained by averaging the results from all possible samples.

The estimated standard errors given in this appendix do not include all portions of the variability due to nonsampling error that may be present in the data. The standard errors reflect the effect of simple response variance, but not the effect of correlated errors introduced by enumerators, coders, or other field or processing personnel. Thus, the standard errors calculated represent a lower bound of the total error. As a result,

confidence intervals formed using these estimated standard errors may not meet the stated levels of confidence (i.e., 68, 90, or 95 percent). Thus, some care must be exercised in the interpretation of the data in this data product based on the estimated standard errors.

A standard sampling theory text should be helpful if the user needs more information about confidence intervals and nonsampling errors.

Use of Tables to Compute Standard Errors

The following is a hypothetical example of how to compute a standard error of a total and a percentage. Suppose a particular data table shows that for Municipio A 9,948 persons out of all 15,888 persons age 16 years and over were in the civilian labor force. The percent-in-sample table lists Municipio A with a percent-in-sample of 16.0 percent (Persons column). The column in table C which includes 16.0 percent-in-sample shows the design factor to be 1.1 for "Employment status."

The basic standard error for the estimated total 9,948 may be obtained from table A or from the formula given below table A. In order to avoid interpolation, the use of the formula will be demonstrated here. Suppose that the total population of Municipio A was 21,220. The formula for the basic standard error, SE, is

$$SE(9,948) = \sqrt{5(9,948)\,(1 - 9,948/21,220)}$$

$$= 163 \text{ persons.}$$

The standard error of the estimated 9,948 persons 16 years and over who were in the civilian labor force is found by multiplying the basic standard error 163 by the design factor, 1.1 from table C. This yields an estimated standard error of 179 for the total number of persons 16 years and over in Municipio A who were in the civilian labor force.

The estimated percent of persons 16 years and over who were in the civilian labor force in Municipio A is 62.6. From table B, the unadjusted standard error is found to be approximately 0.85 percentage points. The standard error for the estimated 62.6 percent of persons 16 years and over who were in the civilian labor force is 0.85 x 1.1 = 0.94 percentage points.

A note of caution concerning numerical values is necessary. Standard errors of percentages derived in this manner are approximate. Calculations can be expressed to several decimal places, but to do so would indicate more precision in the data than is justifiable. Final results should contain no more than two decimal places when the estimated standard error is one percentage point (i.e., 1.00) or more.

In the previous example, the standard error of the 9,948 persons 16 years and over in Municipio A who were in the civilian labor force was found to be 179. Thus, a 90 percent confidence interval for this estimated total is found to be:

$$[9,948 - 1.645(179)] \text{ to } [9,948 + 1.645(179)]$$

or

9,654 to 10,242

One can say, with about 90 percent confidence, that this interval includes the value that would have been obtained by averaging the results from all possible samples.

The following is an illustration of the calculation of standard errors and confidence intervals when a difference between two sample estimates is obtained. For example, suppose the number of persons in Municipio B age 16 years and over who were in the civilian labor force was 9,314 and the total number of persons 16 years and over was 16,666. Further suppose the population of Municipio B was 25,225. Thus, the estimated percentage of persons 16 years and over who were in the civilian labor force is 55.9 percent. The unadjusted standard error determined using the formula provided at the bottom of table B is 0.86 percentage points. We find that Municipio B had a percent-in-sample of 15.7. The range which includes 15.7 percent-in-sample in table C shows the design factor to be 1.1 for "Employment Status." Thus, the approximate standard error of the percentage (55.9 percent) is 0.86 x 1.1 = 0.95 percentage points.

Now suppose that one wished to obtain the standard error of the difference between Municipio A and Municipio B of the percentages of persons who were 16 years and over and who were in the civilian labor force. The difference in the percentages of interest for the two municipios is:

$$62.6 - 55.9 = 6.7 \text{ percent.}$$

Using the results of the previous example:

$$SE(6.7) = \sqrt{(SE(62.6))^2 + (SE(55.9))^2} = \sqrt{(0.94)^2 + (0.95)^2}$$

$$= 1.34 \text{ percentage points}$$

The 90 percent confidence interval for the difference is formed as before:

$$[6.70 - 1.645(1.34)] \text{ to } [6.70 + 1.645(1.34)]$$

or

4.50 to 8.90

One can say with 90 percent confidence that the interval includes the difference that would have been obtained by averaging the results from all possible samples.

For reasonably large samples, ratio estimates are normally distributed, particularly for the census population. Therefore, if we can calculate the standard error of

a ratio estimate then we can form a confidence interval around the ratio. Suppose that one wished to obtain the standard error of the ratio of the estimate of persons who were 16 years and over and who were in the civilian labor force in Municipio A to the estimate of persons who were 16 years and over and who were in the civilian labor force in Municipio B. The ratio of the two estimates of interest is:

$$9948/9314 = 1.07$$

$$SE(1.07) = \left(\frac{9\,948}{9314}\right)\sqrt{\frac{1}{(9\,948)^2}\,79^2 + \frac{188^2}{(9\,314)^2}}$$

$$= .029$$

Using the results above, the 90 percent confidence interval for this ratio would be:

$$[1.07 - 1.645(.029)] \text{ to } [1.07 + 1.645(.029)]$$

or

1.02 to 1.12

ESTIMATION PROCEDURE

The estimates which appear in this publication were obtained from an iterative ratio estimation procedure (iterative proportional fitting) resulting in the assignment of a weight to each sample person or housing unit record. For any given tabulation area, a characteristic total was estimated by summing the weights assigned to the persons or housing units possessing the characteristic in the tabulation area. Estimates of family or household characteristics were based on the weight assigned to the family member designated as householder. Each sample person or housing unit record was assigned exactly one weight to be used to produce estimates of all characteristics. For example, if the weight given to a sample person or housing unit had the value 6, all characteristics of that person or housing unit would be tabulated with the weight of 6. The estimation procedure, however, did assign weights varying from person to person or housing unit to housing unit. The estimation procedure used to assign the weights was performed in geographically defined "weighting areas." Weighting areas generally were formed of contiguous geographic units which agreed closely with census tabulation areas within municipios. Weighting areas were required to have a minimum sample of 400 persons. Weighting areas never crossed municipio boundaries. In small municipios with a sample count below 400 persons, the minimum required sample condition was relaxed to permit the entire municipio to become a weighting area.

Within a weighting area, the ratio estimation procedure for persons was performed in three stages. For persons, the first stage applied 17 household-type groups. The second stage used the dichotomy householders/ nonhouseholders. The third stage applied 18 aggregate age-sex categories. The stages were as follows:

PERSONS

STAGE I: TYPE OF HOUSEHOLD

Group	Persons in Housing Units With a Family With Own Children Under 18
1	2 persons in housing unit
2	3 persons in housing unit
3	4 persons in housing unit
4	5 to 7 persons in housing unit
5	8 or more persons in housing unit
	Persons in Housing Units With a Family Without Own Children Under 18
6-10	2 through 8 or more persons in housing unit
	Persons in All Other Housing Units
11	1 person in housing unit
12-16	2 through 8 or more persons in housing unit
	Persons in Group Quarters
17	Persons in Group Quarters

STAGE II: HOUSEHOLDER/ NONHOUSEHOLDER

1	Householder
2	Nonhouseholder

STAGE III. AGE/ SEX

Group	Male
1	0 to 4 years
2	5 to 14 years
3	15 to 19 years
4	20 to 24 years
5	25 to 34 years
6	35 to 54 years
7	55 to 64 years
8	65 to 74 years
9	75 years and over
	Female
10-18	Same age categories as groups 1 through 9.

Within a weighting area, the first step in the estimation procedure was to assign an initial weight to each sample person record. This weight was approximately equal to the inverse of the probability of selecting a person for the census sample.

The next step in the estimation procedure, prior to iterative proportional fitting, was to combine categories in each of the three estimation stages, when needed to increase the reliability of the ratio estimation procedure.

For each stage, any group that did not meet certain criteria for the unweighted sample count or for the ratio of the 100-percent to the initially weighted sample count, was combined, or collapsed, with another group in the same stage according to a specified collapsing pattern.

As the final step, the initial weights underwent three stages of ratio adjustment applying the grouping procedures described above. At the first stage, the ratio of the complete census count to the sum of the initial weights for each sample person was computed for each stage I group. The initial weight assigned to each person in a group was then multiplied by the stage I group ratio to produce an adjusted weight.

In stage II, the stage I adjusted weights were again adjusted by the ratio of the complete census count to the sum of the stage I weights for sample persons in each stage II group. Finally, at stage III, the stage II weights were adjusted by the ratio of the complete census count to the sum of the stage II weights for sample persons in each stage III group. The three stages of ratio adjustment were performed two times (two iterations) in the order given above. The weights obtained from the second iteration for stage III were assigned to the sample person records. However, to avoid complications in rounding for tabulated data, only whole number weights were assigned. For example, if the final weight of the persons in a particular group was 7.25 then 1/4 of the sample persons in this group were randomly assigned a weight of 8, while the remaining 3/4 received a weight of 7.

The ratio estimation procedure for housing units was essentially the same as that for persons, except that vacant units were treated differently. The occupied housing unit ratio estimation procedure was done in three stages, and the vacant housing unit ratio estimation procedure was done in a single stage. The first stage for occupied housing units applied 16 household type categories. The second stage applied three units-in-structure categories; i.e. single units, multi-unit less than 10 and multi-unit 10 or more. The third stage could potentially use 20 tenure-value/ rent groups. The stages for ratio estimation for housing units were as follows:

OCCUPIED HOUSING UNITS

STAGE I: TYPE OF HOUSEHOLD

Group	Housing Units With a Family With Own Children Under 18
1	2 persons in housing unit
2	3 persons in housing unit
3	4 persons in housing unit
4	5 to 7 persons in housing unit
5	8 or more persons in housing unit

OCCUPIED HOUSING UNITS—Con.

STAGE I: TYPE OF HOUSEHOLD—Con.

	Housing Units With a Family Without Own Children Under 18
6-10	2 through 8 or more persons in housing unit
	All Other Housing Units
11	1 person in housing unit
12-16	2 through 8 or more persons in housing unit

STAGE II: UNITS IN STRUCTURE

1	Single unit structure
2	Multi-unit structure consisting of fewer than 10 individual units
3	Multi-unit structure consisting of 10 or more individual units

STAGE III: TENURE/ VALUE OR RENT

Group	Owner
	Value
1	Less than $20,000
2	$20,000 to $39,999
3	$40,000 to $59,999
4	$60,000 to $79,999
5	$80,000 to $99,999
6	$100,000 to $149,999
7	$150,000 to $249,999
8	$250,000 to $299,999
9	$300,000 or more
10	Other[1]
	Renter
	Rent
101	Less than $100
102	$100 to $199
103	$200 to $299
104	$300 to $399
105	$400 to $499
106	$500 to $599
107	$600 to $749
108	$750 to $999
109	$1,000 or more
110	No cash rent
	Vacant Housing Units
1	Vacant for rent
2	Vacant for sale
3	Other vacant

[1]Value of units in this category results from other factors besides housing value alone, for example, inclusion of more than 3 cuerdas of land, or presence of a commercial establishment on the premises.

The estimates produced by this procedure realize some of the gains in sampling efficiency that would have resulted if the population had been stratified into the ratio estimation groups before sampling, and if the sampling rate had been applied independently to each group. The net effect is a reduction in both the standard error and the possible bias of most estimated characteristics to levels below what would have resulted from simply using the initial, unadjusted weight. A by-product of this estimation procedure is that the estimates from the sample will, for the most part, be consistent with the complete count figures for the population and housing unit groups used in the estimation procedure.

Control of Nonsampling Error

As mentioned earlier, both sample and 100-percent data are subject to nonsampling error. This component of error could introduce serious bias into the data, and the total error could increase dramatically over that which would result purely from sampling. While it is impossible to completely eliminate nonsampling error from an operation as large and complex as the decennial census, the Bureau of the Census attempted to control the sources of such error during the collection and processing operations. Described below are the primary sources of nonsampling error and the programs instituted for control of this error. The success of these programs, however, was contingent upon how well the instructions actually were carried out during the census. As part of the 1990 census evaluation program, both the effects of these programs and the amount of error remaining after their application will be evaluated.

Undercoverage—It is possible for some households or persons to be missed entirely by the census. The undercoverage of persons and housing units can introduce biases into the data.

Coverage improvement programs were implemented during census enumeration and processing to minimize undercoverage of the population and housing units. These programs were developed based on experience from the 1980 census and results from the 1990 census testing cycle.

Addresses were listed concurrent with enumeration. A recheck of units initially classified as vacant or nonexistent improved further the coverage of persons and housing units. All local officials were given the opportunity to participate in a post-census local review, and census enumerators conducted an additional recanvass. In addition, efforts were made to improve the coverage of unique population groups. Computer and clerical edits also contributed to improved coverage.

As a test of the feasibility of using an administrative records list to improve coverage, the Census Bureau obtained a list of residential customers from the Puerto Rico electric company, clerically matched addresses (for large multi-unit structures) on the list to the census address listing books and followed up on units identified on the electric company list but not in the census.

More extensive discussion of the programs implemented to improve coverage will be published by the Census Bureau when the evaluation of the coverage improvement program is completed.

Respondent and Enumerator Error—The person answering the questionnaire or responding to the questions posed by an enumerator could serve as a source of error, although the questions were phrased as clearly as possible and detailed instructions for completing the questionnaire were provided to each household. In addition, respondents' answers were edited for completeness and consistency, and problems were followed up as necessary.

The enumerator may misinterpret or otherwise incorrectly record information given by a respondent; may fail to collect some of the information for a person or household; or may collect data for households that were not designated as part of the sample. To control these problems, the work of enumerators was monitored carefully. Field staff were prepared for their tasks by using standardized training packages that included hands-on experience in using census materials. A sample of the households interviewed by enumerators for nonresponse were reinterviewed to control for the possibility of data for fabricated persons being submitted by enumerators. Also, the estimation procedure was designed to control for biases that would result from the collection of data from households not designated for the sample.

Processing Error—The many phases involved in processing the census data represent potential sources for the introduction of nonsampling error. The processing of the census questionnaires includes the field editing, followup, and transmittal of completed questionnaires; the manual coding of write-in responses; and the electronic data processing. The various field, coding and computer operations undergo a number of quality control checks to insure their accurate application.

Nonresponse—Nonresponse to particular questions on the census questionnaire allows for the introduction of bias into the data, since the characteristics of the nonrespondents have not been observed and may differ from those reported by respondents. As a result, any imputation procedure using respondent data may not completely reflect this difference either at the elemental level (individual person or housing unit) or on the average. Some protection against the introduction of large biases is afforded by minimizing nonresponse. In the census, nonresponse was reduced substantially during the field operations by the various edit and followup operations aimed at obtaining a response for every question. Characteristics for the nonresponses

remaining after this operation were imputed by the computer by using reported data for a person or housing unit with similar characteristics.

EDITING OF UNACCEPTABLE DATA

The objective of the processing operation is to produce a set of data that describes the population as accurately and clearly as possible. To meet this objective, questionnaires were edited during field data collection operations for consistency, completeness, and acceptability. Questionnaires also were reviewed by census clerks for omissions, certain specific inconsistencies, and population coverage. For example, write-in entries such as "Don't know" or "NA" were considered unacceptable. The initial edit was performed by clerks. As a result of this operation, a telephone or personal visit followup was made to obtain missing information. Potential coverage errors were included in the followup, as well as a sample of questionnaires with omissions and/or inconsistencies.

Subsequent to field operations, remaining incomplete or inconsistent information on the questionnaires was assigned using imputation procedures during the final automated edit of the collected data. Imputations, or computer assignments of acceptable codes in place of unacceptable entries or blanks, are needed most often when an entry for a given item is lacking or when the information reported for a person or housing unit on that item is inconsistent with other information for that same person or housing unit. As in previous censuses, the general procedure for changing unacceptable entries was to assign an entry for a person or housing unit that was consistent with entries for persons or housing units with similar characteristics. The assignment of acceptable codes in place of blanks or unacceptable entries enhances the usefulness of the data.

Another way in which corrections were made during the computer editing process was through substitution; that is, the assignment of a full set of characteristics for a person or housing unit. When there was an indication that a housing unit was occupied but the questionnaire contained no information for the people within the household or the occupants were not listed on the questionnaire, a previously accepted household was selected as a substitute, and the full set of characteristics for the substitute was duplicated. The assignment of the full set of housing characteristics occurred when there was no housing information available. If the housing unit was determined to be occupied, the housing characteristics were assigned from a previously processed occupied unit. If the housing unit was vacant, the housing characteristics were assigned from a previously processed vacant unit.

Table A. **Unadjusted Standard Error for Estimated Totals**

[Based on a 1-in-6 simple random sample]

Estimated Total[1]	Size of publication area[2]													
	500	1,000	2,500	5,000	10,000	25,000	50,000	100,000	250,000	500,000	1,000,000	5,000,000	10,000,000	25,000,000
50	16	16	16	16	16	16	16	16	16	16	16	16	16	16
100	20	21	22	22	22	22	22	22	22	22	22	22	22	22
250	25	30	35	35	35	35	35	35	35	35	35	35	35	35
500	-	35	45	45	50	50	50	50	50	50	50	50	50	50
1,000	-	-	55	65	65	70	70	70	70	70	70	70	70	70
2,500	-	-	-	80	95	110	110	110	110	110	110	110	110	110
5,000	-	-	-	-	110	140	150	150	160	160	160	160	160	160
10,000	-	-	-	-	-	170	200	210	220	220	220	220	220	220
15,000	-	-	-	-	-	170	230	250	270	270	270	270	270	270
25,000	-	-	-	-	-	-	250	310	340	350	350	350	350	350
75,000	-	-	-	-	-	-	-	310	510	570	590	610	610	610
100,000	-	-	-	-	-	-	-	-	550	630	670	700	700	710
250,000	-	-	-	-	-	-	-	-	-	790	970	1 090	1 100	1 100
500,000	-	-	-	-	-	-	-	-	-	-	1 120	1 500	1 540	1 570
1,000,000	-	-	-	-	-	-	-	-	-	-	-	2 000	2 120	2 190
5,000,000	-	-	-	-	-	-	-	-	-	-	-	-	3 540	4 470
10,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	5 480

[1]For estimated totals larger than 10,000,000, the standard error is somewhat larger than the table values. The formula given below should be used to calculate the standard error.

$$SE(\hat{Y}) = \sqrt{5\ \hat{Y}(1 - \frac{\hat{Y}}{N})}$$

N = Size of area

$\hat{Y}$ = Estimate of characteristic total

[2]The total count of persons in the area if the estimated total is a person characteristic, or the total count of housing units in the area if the estimated total is a housing unit characteristic.

Table B. **Unadjusted Standard Error in Percentage Points for Estimated Percentage**

[Based on a 1-in-6 simple random sample]

Estimated Percentage	Base of percentage[1]												
	500	750	1,000	1,500	2,500	5,000	7,500	10,000	25,000	50,000	100,000	250,000	500,000
2 or 98	1.4	1.1	1.0	0.8	0.6	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1
5 or 95	2.2	1.8	1.5	1.3	1.0	0.7	0.6	0.5	0.3	0.2	0.2	0.1	0.1
10 or 90	3.0	2.4	2.1	1.7	1.3	0.9	0.8	0.7	0.4	0.3	0.2	0.1	0.1
15 or 85	3.6	2.9	2.5	2.1	1.6	1.1	0.9	0.8	0.5	0.4	0.3	0.2	0.1
20 or 80	4.0	3.3	2.8	2.3	1.8	1.3	1.0	0.9	0.6	0.4	0.3	0.2	0.1
25 or 75	4.3	3.5	3.1	2.5	1.9	1.4	1.1	1.0	0.6	0.4	0.3	0.2	0.1
30 or 70	4.6	3.7	3.2	2.6	2.0	1.4	1.2	1.0	0.6	0.5	0.3	0.2	0.1
35 or 65	4.8	3.9	3.4	2.8	2.1	1.5	1.2	1.1	0.7	0.5	0.3	0.2	0.2
50	5.0	4.1	3.5	2.9	2.2	1.6	1.3	1.1	0.7	0.5	0.4	0.2	0.2

[1]For a percentage and/ or base of percentage not shown in the table, the formula given below may be used to calculate the standard error. This table should only be used for proportions, that is, where the numerator is a subset of the denominator.

$$SE(\hat{p}) = \sqrt{\frac{5}{B}\hat{p}(100 - \hat{p})}$$

B = Base of estimated percentage

$\hat{p}$ = Estimated percentage

Table C. **Standard Error Design Factors—Puerto Rico**

[Percent of persons or housing units in sample]

Characteristic	Less than 15 percent	15 percent or more
POPULATION		
Age	1.2	1.1
Sex	1.8	1.5
Marital status	1.2	1.0
Household type and relationship	1.4	1.2
Children ever born	3.1	2.9
Work disability and mobility limitation status	1.2	1.1
Place of birth	2.5	2.3
Citizenship	2.1	1.8
Residence in 1985	2.5	2.2
Year of entry	3.2	2.7
Ability to speak Spanish and/ or English	1.5	1.3
Educational attainment	1.3	1.1
School enrollment	1.9	1.6
Ability to read and write	1.5	1.3
Vocational training	1.6	1.4
Length of last stay in the United States	3.2	2.7
School attendance	3.3	2.7
Type of residence (urban/ rural)	2.8	2.2
Household type	1.2	1.1
Family type	1.4	1.3
Subfamily type and presence of children	1.2	1.1
Group quarters	1.1	0.9
Employment status	1.2	1.1
Industry	1.2	1.1
Occupation	1.2	1.1
Class of worker	1.3	1.1
Hours per week and weeks worked in 1989	1.2	1.1
Number of workers in family	1.3	1.1
Place of work	1.3	1.1
Means of transportation to work	1.3	1.1
Travel time to work	1.3	1.1
Time leaving home to go to work	1.3	1.1
Private vehicle occupancy	1.3	1.1
Type of income in 1989	1.4	1.2
Household income in 1989	1.2	1.1
Family income in 1989	1.2	1.1
Poverty status in 1989 (persons)	1.3	1.2
Poverty status in 1989 (families)	1.2	1.1
Armed Forces and veteran status	1.7	1.4

APPENDIX D.
Collection and Processing Procedures

CONTENTS

Data Collection Procedures D–2
Enumeration and Residence Rules D–1
Processing Procedures D–4

ENUMERATION AND RESIDENCE RULES

In accordance with census practice dating back to the first United States census in 1790, each person was to be enumerated as an inhabitant of his or her "usual residence" in the 1990 census. Usual residence is the place where the person lives and sleeps most of the time or considers to be his or her usual residence. This place is not necessarily the same as the person's legal residence or voting residence. In the vast majority of cases, however, the use of these different bases of classification would produce substantially the same statistics, although there might be appreciable differences for a few areas.

The implementation of this practice has resulted in the establishment of rules for certain categories of persons whose usual place of residence is not immediately apparent. Furthermore, this practice means that persons were not always counted as residents of the place where they happened to be staying on Census Day (April 1, 1990).

Enumeration Rules

Each person whose usual residence was in Puerto Rico was to be included in the census, without regard to the person's legal status or citizenship. In a departure from earlier censuses, foreign diplomatic personnel participated voluntarily in the census. As in previous censuses, persons in Puerto Rico specifically excluded from the census were foreign travelers who had not established a residence in Puerto Rico.

Persons with a usual residence outside Puerto Rico were not enumerated in the 1990 census of Puerto Rico. On the other hand, persons temporarily overseas were to be enumerated at their usual residence in Puerto Rico.

Residence Rules

Each person included in the census was to be counted at his or her usual residence—the place where he or she lives and sleeps most of the time or the place that the person considers to be his or her usual home. If a person had no usual residence, the person was to be counted where he or she happened to be staying on April 1, 1990.

Persons temporarily away from their usual residence, whether in Puerto Rico, the United States or overseas, on a vacation or on a business trip, were counted at their usual residence. Persons who occupied more than one residence during the year were counted at the one they considered to be their usual residence. Persons who moved on or near Census Day were counted at the place they considered to be their usual residence.

Persons in the U.S. Armed Forces—Members of the U.S. Armed Forces were counted as residents of the area in which the installation was located, either on the installation or in the surrounding community. Family members of U.S. Armed Forces personnel were counted where they were living on Census Day (for example, with the U.S. Armed Forces person or at another location).

Each U.S. Navy ship not deployed to the 6th or 7th Fleet was attributed to the municipio in Puerto Rico or the locality in the United States that the Department of the Navy designated as its homeport. If the homeport included more than one municipio in Puerto Rico or more than one locality in the United States, ships berthed there on Census Day were assigned by the U.S. Bureau of the Census to the municipio in Puerto Rico or the locality in the United States in which the land immediately adjacent to the dock or pier was actually located. Ships attributed to the homeport, but not physically present and not deployed to the 6th or 7th Fleet, were assigned to the municipio in Puerto Rico or the locality in the United States named on the Department of the Navy's homeport list. These rules also apply to U.S. Coast Guard vessels.

Personnel assigned to each U.S. Navy and Coast Guard ship were given the opportunity to report a residence off the ship. Those who did report an off-ship residence in the communities surrounding the homeport were counted there; those who did not were counted as residents of the ship. Personnel on U.S. Navy ships deployed to the 6th or 7th Fleet on Census Day were considered to be part of the U.S. overseas population.

Persons on U.S. Maritime Ships—Persons aboard U.S. maritime ships who reported an off-ship residence were counted at that residence. Those who did not were counted as residents of the ship and were attributed as follows:

1. The port where the ship was docked on Census Day, if that port was in Puerto Rico, the United States, or its other territories.
2. The port of departure if the ship was at sea, provided the port was in Puerto Rico, the United States, or its other territories.
3. The port of destination in Puerto Rico, the United States, or its other territories, if the port of departure of a ship at sea was a foreign port.
4. The overseas population if the ship was docked at a foreign port or was at sea between foreign ports.

Persons Away at School—College students were counted as residents of the area in which they were living while attending college, as they have been since the 1950 census. Children in boarding schools below the college level were counted at their parental home.

Persons in Institutions—Persons under formally authorized, supervised care or custody, such as in Commonwealth of Puerto Rico prisons; local jails; juvenile institutions; nursing, convalescent, and rest homes for the aged and dependent; or homes, schools, hospitals, or wards for the physically handicapped, mentally retarded, or mentally ill, were counted at these places.

Persons Away From Their Usual Residence on Census Day—In some parts of the island, Hurricane Hugo, which struck in September 1989, displaced significant numbers of households from their usual place of residence. If these persons reported a destroyed or damaged residence as their usual residence, they were counted at that location.

Persons away from their usual residence were counted by means of interviews with other members of their families, resident managers, or neighbors.

DATA COLLECTION PROCEDURES

The 1990 Census of Puerto Rico was conducted through a combination of self-enumeration and personal interview. This method, formerly known as conventional or door-to-door enumeration, is called list/enumerate.

Spanish-language short-form questionnaires were delivered to residences by the United States Postal Service (USPS) 1 week before Census Day (April 1, 1990) in an unaddressed packet. The questionnaire packet also included general information about the 1990 census and instructions to the respondents explaining how to complete the questionnaire. English-language questionnaires were available on request.

During the enumeration of housing units in Puerto Rico, enumerators used one of the following questionnaires:

1. A short-form questionnaire that contained a limited number of basic population and housing questions; these questions were asked of all persons and housing units and are often referred to as the 100-percent questions. (This questionnaire contained the same items as the questionnaire delivered by the USPS 1 week before Census Day, but was designed to be administered by the enumerator during personal interviews.)
2. A long-form questionnaire that contained the 100-percent items and a number of additional questions; a sampling procedure was used to determine those housing units that were to answer the long-form questionnaire. This form was used by enumerators during personal interviews; thus, there were no respondent instructions.

These forms were keyable documents similar in content to the stateside forms. The Puerto Rico forms, however, included a number of questions specifically designed to meet Puerto Rico's data needs. The sampling rate used in the 1990 Census of Puerto Rico required that one in every six housing units (about 17 percent) answer the long-form or sample questionnaire.

Enumeration of Housing Units

Starting a week before Census Day, enumerators canvassed their assigned areas, created a list of all housing units, completed long-form questionnaires as required, picked up the completed short-form questionnaires delivered by the USPS, or completed a short-form questionnaire as necessary.

Field Followup

Followup enumerators visited those housing units for which questionnaires were missing and those initially identified as vacant to obtain a completed questionnaire or to verify the vacancy status of the unit as of Census Day.

Coverage and Edit-Failure Followup—The enumerators conducted an initial check of the questionnaires for completeness and consistency. The census office staff performed additional coverage and edit checks. Those households whose questionnaires did not meet specific quality standards because of incomplete or inconsistent information were contacted by telephone or by personal visit during the Field Followup operation to obtain the missing information or rectify the inconsistencies.

Special Enumeration Procedures

Special procedures and questionnaires were used for the enumeration of persons in group quarters such as college dormitories, nursing homes, prisons, military

barracks, and ships. The questionnaires (Individual Census Reports, Military Census Reports, and Shipboard Census Reports) included the 100-percent population questions but did not include any housing questions. In all group quarters, all persons were asked the basic population questions; in most group quarters, additional questions were asked of a sample (one-in-six) of persons.

Shelter and Street Night (S-Night)

The Census Bureau collected data for various components of the homeless population at different stages in the 1990 census. "Shelter and Street Night" (S-Night) was a special census operation to count the population in four types of locations where homeless people are found. On the evening of March 20, 1990, and during the early morning hours of March 21, 1990, enumerators counted persons in pre-identified locations:

1. Emergency shelters for homeless persons, with sleeping facilities (public and private; permanent and temporary).
2. Shelters with temporary lodging for runaway, neglected, and homeless children.
3. Shelters for abused women and their children.
4. Open locations in streets or other places not intended for habitation.

Emergency shelters include all hotels and motels (regardless of cost) used entirely to shelter homeless persons, and pre-identified rooms in hotels and motels used for homeless persons and families, and similar places known to have persons who have no usual home elsewhere staying overnight. Enumeration in shelters usually occurred from 6 p.m. to midnight; street enumeration, from 2 a.m. to 4 a.m.; abandoned and boarded-up buildings from 4 a.m. to 8 a.m.; and shelters for abused women, from 6 p.m. on March 20 to noon on March 21.

Other components, which some consider as part of the homeless population, were enumerated as part of regular census operations. These include persons doubled up with other families, as well as persons with no other usual home living in transient sites, such as commercial campgrounds, maternity homes for unwed mothers, and drug/alcohol abuse detoxification centers. In institutions, such as local jails and mental hospitals, the Census Bureau does not know who has a usual home elsewhere; therefore, even though some are literally homeless, these persons cannot be identified separately as a component of the homeless population.

There is no generally agreed-upon definition of "the homeless," and there are limitations in the census count that prevent obtaining a total count of the homeless population under any definition. As such, the Census Bureau does not have a definition and will not provide a total count of the "homeless." Rather, the Census Bureau will provide counts and characteristics of persons found at the time of the census in *selected* types of living arrangements. These selected components can be used as building blocks to construct a count of homeless persons appropriate to particular purposes as long as the data limitations are taken into account.

In preparation for "Shelter-and-Street-Night" enumeration, the New York Regional Census Center (RCC) mailed a certified letter (Form D-33(L) PR(S)) to the mayor of each municipio requesting that he/she identify:

1. All shelters with sleeping facilities (permanent and temporary, such as churches, armories, public buildings, and so forth, that could be open on March 20).
2. Hotels and motels used to house homeless persons and families.
3. A list of outdoor locations where homeless persons tend to be at night.
4. Places such as bus stations, airports, hospital emergency rooms, and so forth, where homeless persons seek shelter at night.
5. The specific addresses of abandoned or boarded-up buildings where homeless persons were thought to stay at night.

The letter from the RCC to the municipios emphasized the importance of listing night-time congregating sites. The list of shelters was expanded using information from other informed local sources. The street sites were limited to the list provided by the municipios. All municipios were eligible for "Shelter and Street Night." The Census Bureau encouraged persons familiar with homeless persons and the homeless themselves to apply as enumerators.

For shelters, both long- and short-form Individual Census Reports (ICR's) were distributed. For street enumeration, only short-form ICR's were used. Persons in shelters and at street locations were asked the basic population questions. Additional questions about social and economic characteristics were asked of a sample of persons in shelters only.

Enumerators were instructed *not* to ask who was homeless; rather, they were told to count all persons (including children) staying overnight at the shelters, and everyone they saw on the street except the police, other persons in uniform, and persons engaged in employment or obvious money-making activities other than begging and panhandling.

At both shelter and street sites, persons found sleeping were not awakened to answer questions. Rather, the enumerator answered the sex question by observation and estimated the person's age to the best of his or

her ability. In shelters, administrative records and information from the shelter operator were used, when available, for persons who were already asleep.

The "street" count was restricted to persons who were visible when the enumerator came to the open, public locations that had been identified by each municipio. Homeless persons who were well hidden, moving about, or in locations other than those identified were likely missed. The number missed will never be known and there is no basis to make an estimate of the number missed from census data. The count of persons in open, public places was affected by many factors, including the extra efforts made to encourage people to go to shelters for "Shelter and Street Night," the presence of the media, and distrust of the census. Expectations of the number of homeless persons on the street cannot be based on the number seen during the day because the night-time situation is normally very different as more homeless persons are in shelters or very well hidden.

For both "Shelter-and-Street-Night" locations, the Census Bureau assumed that the usual home of those enumerated was in the block where they were found (shelter or street).

The "Shelter-and-Street-Night" operation replaced and expanded the 1980 Mission Night (M-Night). This operation was aimed at counting the population who reported having no usual residence. M-Night was conducted a week after Census Day, in April 1980. Enumerators visited hotels, motels and similar places costing $4 or less each night; missions, flophouses, local jails and similar places at which the average length of stay was 30 days or less; and nonshelter locations, such as bus stations. Questions were asked of everyone, regardless of age. Enumerators conducted M-Night up to midnight on April 8, 1980, and returned the next morning to collect any forms completed after midnight.

PROCESSING PROCEDURES

The Puerto Rico questionnaires were processed in a section of the Census Bureau Processing Office in Jacksonville, Florida specifically set up for the processing of keyable documents. For most items on the questionnaire, the information supplied by the respondent or obtained by the enumerator had been indicated by marking the answers in predesignated boxes.

The data processing was performed in several stages. All questionnaires passed through a check-in procedure upon their arrival at the processing office. Selected written entries on both the short and long forms were coded clerically. The coded information included written entries for industry and occupation, migration, place of birth, and household relationship. All responses to the questions on Individual Census Reports (ICRs), Military Census Reports (MCRs), and Shipboard Census Reports (SCRs) were keyed. After all coding operations were completed, the short and long forms were keyed. The resulting file was sent to the Census Bureau headquarters for computer editing, weighting, and tabulating operations.

APPENDIX E.
Facsimiles of Respondent Instructions and Questionnaire Pages

(No Respondent Instructions were provided for the long-form questionnaire.)

OMB No. 0607-0656: Approval Expires 12/31/90

FORM **D-2A PR(E)** U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS

1990 CENSUS OF PUERTO RICO

NOTICE — Response to this inquiry **is required by law (Title 13, U.S. Code).** By the same law, your report to the Census Bureau **is confidential.** It may be seen only by sworn Census Bureau employees and may be used only for statistical purposes.

INTRODUCTION

• FOR PERSONAL VISIT

Hello, my name is *(Your name)* **and I'm from the United States Census Bureau. This is my identification** *(PAUSE)* **and here's some information about the purpose of my visit.** *(Give respondent copy of Privacy Act Notice).*

NEXT:

Ask the questions at the top of the listing page.
Obtain a completed form from each address.

• FOR TELEPHONE INTERVIEW

Hello, my name is *(Your name)* **and I'm calling for the United States Census Bureau. Have I reached** *(Read address)*?

If YES — **We are taking the 1990 Census of Puerto Rico and our records show that we have not been able to obtain a census form for this address.**

I'd like to complete the form now over the telephone. For the average household, this interview should take about 31 minutes.

If NO — **Excuse me, I might have dialed the wrong number. Is this** *(Read phone number)*?

FOR CENSUS USE

A1. DO code	**A2.** Unit ID	**A3.** ARA	**A4.** Block	**B.** Map spot	**C.** Form type
					L

D. Population	**E.** Type of Unit	**F1.** Complete after	**F2.** Coverage
	Occupied: 3 ☐ First Form, 4 ☐ Continuation; Vacant: 1 ☐ Regular, 2 ☐ UHE	1 ☐ LR, 2 ☐ P/F, 3 ☐ MV, 4 ☐ ED, 5 ☐ TC, 6 ☐ RE, 7 ☐ PØ, 8 ☐ IA, 9 ☐ SM, 0 ☐ P1	1 ☐ 1b, 2 ☐ 1a

G. Mailing address — *Number, street, apartment number or location, rural route and box, post office box*

City	Municipio		ZIP Code
		PUERTO RICO	

H. Method of completion — *Mark (X) ONE box*	**I.** Respondent's name	**J.** Respondent's telephone number
1 ☐ Personal visit 2 ☐ Telephone		**(809)**

O. CERTIFICATION — I certify that the entries I have made on this questionnaire are true and correct to the best of my knowledge.

Enumerator's signature	Date

Crew leader's initials	Date	CLD number

NOTES

The 1990 census must count every person at his or her "usual residence." This means the place where the person lives and sleeps most of the time.

Include

- Everyone who usually lives here such as family members, housemates and roommates, foster children, roomers, boarders, and live-in employees
- Persons who are temporarily away on a business trip, on vacation, or in a general hospital
- College students who stay here while attending college
- Persons in the Armed Forces who live here
- Newborn babies still in the hospital
- Children in boarding schools below the college level
- Persons who stay here most of the week while working even if they have a home somewhere else
- Persons with no other home who are staying here on April 1

Do NOT include

- Persons who usually live somewhere else
- Persons who are away in an institution such as a prison, mental hospital, or a nursing home
- College students who live somewhere else while attending college
- Persons in the Armed Forces who live somewhere else
- Persons who stay somewhere else most of the week while working

1a. Please give me the name of each person living here on Sunday, April 1, including all persons staying here who have no other home. If EVERYONE is staying here temporarily and usually lives somewhere else, give me the name of each person. Begin with the household member in whose name the home is owned, being bought, or rented. If there is no such person, start with any adult household member.
Print last name, first name, and middle initial for each person.

	LAST	FIRST	INITIAL		LAST	FIRST	INITIAL
1				7			
2				8			
3				9			
4				10			
5				11			
6				12			

1b. *If EVERYONE listed above is staying here only temporarily and usually lives somewhere else, mark (X) this box* → ☐
and ask — **Where do these people usually live?**
DO NOT PRINT THE ADDRESS LISTED IN ITEM G ON THE FRONT COVER.

House number | Street or road/Rural route and box number | Apartment number

City | State or Puerto Rico | ZIP Code

County/Municipio/Foreign country | Names of nearest intersecting streets or roads

PLEASE ALSO ASK HOUSING QUESTIONS ON PAGE 3 →

Please fill one column for each person listed in Question 1a on page 1. →	**PERSON 1** Last name First name Middle initial	**PERSON 2** Last name First name Middle initial
Do not ask for Person 1. **2. How is . . . related to** *(Person 1)?* *Mark (X) ONE box for each person.* *If* **Other relative** *of person in column 1, mark (X) the box and print exact relationship, such as mother-in-law, grandparent, son-in-law, niece, cousin, and so on.*	*START in this column with the household member (or one of the members) in whose name the home is owned, being bought, or rented.* *If there is no such person, start in this column with any adult household member.*	If a RELATIVE of Person 1: 1 ☐ Husband/wife 2 ☐ Natural-born or adopted son/daughter 3 ☐ Stepson/stepdaughter 4 ☐ Brother/sister 5 ☐ Father/mother 6 ☐ Grandchild 7 ☐ Other relative → ☐☐☐ If NOT RELATED to Person 1: 8 ☐ Roomer, boarder, or foster child 9 ☐ Housemate, roommate 10 ☐ Unmarried partner/Compañero 11 ☐ Other nonrelative
3. Is . . . male or female? *Mark (X) ONE box for each person.*	1 ☐ Male 2 ☐ Female	1 ☐ Male 2 ☐ Female
4. Age and year of birth **a. How old is . . . ?** *(Age should be as of April 1, 1990.)* *If unknown, say —* **Please give me your best estimate.** *Print the age in the boxes.* **b. In what year was . . . born?** *Print the year of birth in the boxes.*	a. Age ☐☐☐ b. Year of birth 1☐☐☐	a. Age ☐☐☐ b. Year of birth 1☐☐☐
5. Is . . . now married, consensually married, widowed, divorced, separated, or has . . . never been married? *Mark (X) ONE box for each person.*	1 ☐ Now married 2 ☐ Consensually married 3 ☐ Widowed 4 ☐ Divorced 5 ☐ Separated 6 ☐ Never married	1 ☐ Now married 2 ☐ Consensually married 3 ☐ Widowed 4 ☐ Divorced 5 ☐ Separated 6 ☐ Never married

PERSON 7

Last name

First name — Middle initial

If a RELATIVE of Person 1:

1 ☐ Husband/wife
2 ☐ Natural-born or adopted son/daughter
3 ☐ Stepson/stepdaughter
4 ☐ Brother/sister
5 ☐ Father/mother
6 ☐ Grandchild
7 ☐ Other relative

If NOT RELATED to Person 1:

8 ☐ Roomer, boarder, or foster child
9 ☐ Housemate, roommate
10 ☐ Unmarried partner/Compañero
11 ☐ Other nonrelative

1 ☐ Male
2 ☐ Female

a. Age ☐☐☐

b. Year of birth 1☐☐☐

1 ☐ Now married
2 ☐ Consensually married
3 ☐ Widowed
4 ☐ Divorced
5 ☐ Separated
6 ☐ Never married

NOW PLEASE ASK QUESTIONS H1a—H30b FOR THIS HOUSEHOLD

H1a. When you told me the names of persons living here on April 1, did you leave anyone out because you were not sure if the person should be listed — for example, someone temporarily away on a business trip or vacation, a newborn baby still in the hospital, or a person who stays here once in a while and has no other home?

1 ☐ Yes — *Determine if you should add the person(s) based on the instructions for Question 1a.*
2 ☐ No

b. When you told me the names of persons living here on April 1, did you include anyone even though you were not sure that the person should be listed — for example, a visitor who is staying here temporarily or a person who usually lives somewhere else?

1 ☐ Yes — *Determine if you should delete the person(s) based on the instructions for Question 1a.*
2 ☐ No

H2. Which best describes this building? Include all apartments, flats, etc., even if vacant.

1 ☐ A mobile home or trailer
2 ☐ A one-family house detached from any other house
3 ☐ A one-family house attached to one or more houses
4 ☐ A building with 2 apartments
5 ☐ A building with 3 or 4 apartments
6 ☐ A building with 5 to 9 apartments
7 ☐ A building with 10 to 19 apartments
8 ☐ A building with 20 to 49 apartments
9 ☐ A building with 50 or more apartments
10 ☐ Other

H3. How many rooms do you have in this (house/apartment)? Count living rooms, dining rooms, kitchens, and bedrooms, but do NOT count bathrooms, balconies, foyers, or halls.

1 ☐ 1 room
2 ☐ 2 rooms
3 ☐ 3 rooms
4 ☐ 4 rooms
5 ☐ 5 rooms
6 ☐ 6 rooms
7 ☐ 7 rooms
8 ☐ 8 rooms
9 ☐ 9 or more rooms

H4a. Is there hot and cold piped water in this (house/apartment)?

1 ☐ Yes, hot and cold piped water
2 ☐ No, only cold piped water
3 ☐ No piped water — *Skip to H4d*

b. Is there a bathtub or shower in this (house/apartment)?

1 ☐ Yes
2 ☐ No bathtub or shower

c. Is there a flush toilet in this (house/apartment)?

1 ☐ Yes — *Skip to H5*
2 ☐ No — *Go to H4d*

d. What type of toilet facilities do you have?

1 ☐ Privy
2 ☐ Other or none

H5. Is this (house/apartment) part of a condominium? A CONDOMINIUM is a building or development with individually owned apartments or houses, having commonly owned areas and grounds.

1 ☐ Yes
2 ☐ No

H6. Is this (house/apartment) —

1 ☐ Owned by you or someone in this household with a mortgage or loan?
2 ☐ Owned by you or someone in this household free and clear (without a mortgage)?
3 ☐ Rented for cash rent?
4 ☐ Occupied without payment of cash rent?

Ask only if this is a ONE-FAMILY HOUSE —

H7a. Is this house on a property of 3 or more cuerdas?

1 ☐ Yes
2 ☐ No

b. Is any part of the property used as:

	Yes	No
(1) A commercial establishment?	1 ☐	2 ☐
(2) A medical office?	1 ☐	2 ☐
(3) Other professional office?	1 ☐	2 ☐

Ask only if someone in this household OWNS OR IS BUYING this house or apartment—

H8. What is the value of this property; that is, how much do you think this (house and lot/condominium unit) would sell for if it were for sale?

1 ☐ Less than $10,000
2 ☐ $10,000 to $14,999
3 ☐ $15,000 to $19,999
4 ☐ $20,000 to $24,999
5 ☐ $25,000 to $29,999
6 ☐ $30,000 to $34,999
7 ☐ $35,000 to $39,999
8 ☐ $40,000 to $44,999
9 ☐ $45,000 to $49,999
10 ☐ $50,000 to $54,999
11 ☐ $55,000 to $59,999
12 ☐ $60,000 to $64,999
13 ☐ $65,000 to $69,999
14 ☐ $70,000 to $74,999
15 ☐ $75,000 to $79,999
16 ☐ $80,000 to $89,999
17 ☐ $90,000 to $99,999
18 ☐ $100,000 to $124,999
19 ☐ $125,000 to $149,999
20 ☐ $150,000 to $174,999
21 ☐ $175,000 to $199,999
22 ☐ $200,000 to $249,999
23 ☐ $250,000 to $299,999
24 ☐ $300,000 to $399,999
25 ☐ $400,000 to $499,999
26 ☐ $500,000 or more

Ask only if RENT IS PAID for this house or apartment —

H9. What is the monthly rent?

If rent is NOT PAID BY THE MONTH, see your job instructions on how to figure a monthly rent.

1 ☐ Less than $60
2 ☐ $60 to $79
3 ☐ $80 to $99
4 ☐ $100 to $124
5 ☐ $125 to $149
6 ☐ $150 to $174
7 ☐ $175 to $199
8 ☐ $200 to $224
9 ☐ $225 to $249
10 ☐ $250 to $274
11 ☐ $275 to $299
12 ☐ $300 to $324
13 ☐ $325 to $349
14 ☐ $350 to $374
15 ☐ $375 to $399
16 ☐ $400 to $424
17 ☐ $425 to $449
18 ☐ $450 to $474
19 ☐ $475 to $499
20 ☐ $500 to $549
21 ☐ $550 to $599
22 ☐ $600 to $649
23 ☐ $650 to $699
24 ☐ $700 to $749
25 ☐ $750 to $999
26 ☐ $1,000 or more

Please continue onto the next page.

FOR ENUMERATOR USE

C1. Vacancy status

1 ☐ For rent
2 ☐ For sale only
3 ☐ Rented or sold, not occupied
4 ☐ For seas/rec/occ
5 ☐ For migrant workers
6 ☐ Other vacant

C2. Is this unit boarded up?

1 ☐ Yes
2 ☐ No

D. Months vacant

1 ☐ Less than 1
2 ☐ 1 up to 2
3 ☐ 2 up to 6
4 ☐ 6 up to 12
5 ☐ 12 up to 24
6 ☐ 24 or more

ALSO ASK THESE

If respondent reported living in an apartment building, skip to H11.

H10a. Is this house on —

1 ☐ Less than 3 cuerdas?
2 ☐ 3 to 9 cuerdas?
3 ☐ 10 or more cuerdas?

b. In 1989, what were the actual sales of all agricultural products from this property?

1 ☐ None
2 ☐ $1 to $99
3 ☐ $100 to $499
4 ☐ $500 to $999
5 ☐ $1,000 to $2,499
6 ☐ $2,500 or more

H11. When did *(Person listed in column 1 on page 2)* move into this (house/apartment)?

1 ☐ 1989 or 1990
2 ☐ 1985 to 1988
3 ☐ 1980 to 1984
4 ☐ 1970 to 1979
5 ☐ 1960 to 1969
6 ☐ 1959 or earlier

H12. About when was this building first built?

1 ☐ 1989 or 1990
2 ☐ 1985 to 1988
3 ☐ 1980 to 1984
4 ☐ 1970 to 1979
5 ☐ 1960 to 1969
6 ☐ 1950 to 1959
7 ☐ 1940 to 1949
8 ☐ 1939 or earlier
9 ☐ Don't know

H13. Which best describes the construction material of this building?

Read categories and mark (X) only ONE box.

Concrete walls (poured concrete, concrete blocks, stone, etc.)

1 ☐ With concrete slab roof
2 ☐ With wood frame roof

Wood frame walls

3 ☐ With concrete foundation, poured concrete, etc.
4 ☐ With wood stilt foundation

5 ☐ Mixed concrete and wood walls
6 ☐ Other type of construction material

H14. Do you get water from —

1 ☐ A public system?
2 ☐ An individual well?
3 ☐ A cistern, tanks, or drums?
4 ☐ A spring or some other source, such as a river, irrigation canal, etc.?

H15. Is this building connected to a public sewer?

1 ☐ Yes, connected to public sewer
2 ☐ No, connected to septic tank or cesspool
3 ☐ No, use other means

H16. How many bedrooms do you have; that is, how many bedrooms would you list if this (house/apartment) were on the market for sale or rent?

1 ☐ No bedroom
2 ☐ 1 bedroom
3 ☐ 2 bedrooms
4 ☐ 3 bedrooms
5 ☐ 4 bedrooms
6 ☐ 5 or more bedrooms

H17. How many bathrooms do you have? A COMPLETE bathroom is a room with flush toilet, bathtub or shower, and wash basin with piped water. A HALF bathroom has a flush toilet AND a wash basin with piped water.

1 ☐ None
2 ☐ Only half bathrooms
3 ☐ 1 complete bathroom
4 ☐ 1 complete bathroom, plus half bath(s)
5 ☐ 2 or more complete bathrooms

H18. What type of water heater do you have in this (house/apartment)?

1 ☐ Electric — tank type
2 ☐ Shower
3 ☐ Solar
4 ☐ Other
5 ☐ None

H19. Which fuel is used MOST for cooking?

1 ☐ Electricity
2 ☐ Gas
3 ☐ Other

H20. Do you have COMPLETE kitchen facilities; that is, a sink with piped water, a range or cookstove, and a refrigerator?

1 ☐ Yes
2 ☐ No

H21. Do you have air conditioning?

1 ☐ Yes, a central air conditioning system
2 ☐ Yes, 1 individual room unit
3 ☐ Yes, 2 or more individual room units
4 ☐ No

H22. Do you have a telephone in this (house/apartment)?

1 ☐ Yes
2 ☐ No

H23. How many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of this household?

1 ☐ None
2 ☐ 1
3 ☐ 2
4 ☐ 3
5 ☐ 4 or more

H24. What is the average monthly cost for electricity for this (house/apartment)?

$ .00
Average monthly cost

OR

1 ☐ Included in rent or in condominium fee

2 ☐ No charge or electricity not used

b. What is the average monthly cost for gas for this (house/apartment)?

$ .00
Average monthly cost

OR

1 ☐ Included in rent or in condominium fee

2 ☐ No charge or gas not used

c. What is the average monthly cost for water for this (house/apartment)?

$ .00
Average monthly cost

OR

1 ☐ Included in rent or in condominium fee

2 ☐ No charge

d. What is the yearly cost for oil, charcoal, kerosene, wood, etc. for this (house/apartment)?

$ .00
Yearly cost

OR

1 ☐ Included in rent or in condominium fee

2 ☐ No charge or these fuels not used

INTERVIEWER INSTRUCTION:

Ask questions H25 TO H29, if this is a one-family house, a condominium or a mobile home that someone in this household OWNS OR IS BUYING, otherwise go to H30.

H25. What were the real estate taxes on THIS property last year?

$ .00
Yearly amount — Dollars

OR

0 ☐ None

H26. What was the annual payment for fire, hazard, and flood insurance on THIS property?

$ .00
Yearly amount — Dollars

OR

0 ☐ None

H27a. Is there a mortgage, deed of trust, contract to purchase, or similar debt on THIS property?

1 ☐ Yes, mortgage, deed of trust, or similar debt
2 ☐ Yes, contract to purchase
} *Go to H27b*

3 ☐ No — *Skip to H28a*

b. How much is the regular monthly mortgage payment on THIS property? Include payment only on first mortgage or contract to purchase.

$ .00
Monthly amount — Dollars

OR

0 ☐ No regular payment required — *Skip to H28a*

c. Does the regular monthly mortgage payment include payments for real estate taxes on THIS property?

1 ☐ Yes, taxes included in payment

2 ☐ No, taxes paid separately or taxes not required

d. Does the regular monthly mortgage payment include payments for fire, hazard, or flood insurance on THIS property?

1 ☐ Yes, insurance included in payment

2 ☐ No, insurance paid separately or no insurance

H28a. Is there a second or junior mortgage or a home equity loan on THIS property?

1 ☐ Yes

2 ☐ No — *Skip to H29*

b. How much is the regular monthly payment on all second or junior mortgages and all home equity loans?

$ .00
Monthly amount — Dollars

OR

0 ☐ No regular payment required

Ask ONLY if this is a CONDOMINIUM —

H29. What is the monthly condominium fee?

$ .00
Monthly amount — Dollars

H30. *MARK FROM OBSERVATION*

CONDITION OF THIS HOUSING UNIT —

a. Original construction

1 ☐ Adequate

2 ☐ Inadequate

b. IF "ADEQUATE" — present condition is —

1 ☐ Sound

2 ☐ Deteriorating

3 ☐ Dilapidated

Please turn to page 6.

PERSON 1

Last name | First name | Middle initial

6. **Where was . . . born?** *Mark (X) the appropriate box and print the name of municipio, State, or foreign country.*

1 ☐ Puerto Rico — *Print name of municipio*

2 ☐ United States — *Print name of U.S. State*

3 ☐ Elsewhere — *Print name of foreign country*

7. *If the answer to question 6 appears in one of the first two "Yes" categories listed below, mark (X) the appropriate "Yes" category. Otherwise, ask —*
Is . . . a CITIZEN of the United States? That is, does . . . have at least one American parent or is . . . a citizen by naturalization?

1 ☐ Yes, born in Puerto Rico — *Skip to 9*
2 ☐ Yes, born in the United States, Guam, the U.S. Virgin Islands, or Northern Marianas
3 ☐ Yes, born abroad of American parent or parents
4 ☐ Yes, U.S. citizen by naturalization
5 ☐ No, not a citizen of the United States

8. **When did . . . come to Puerto Rico to stay?** *If entered country more than once, ask —* **What is the latest year?**

0 ☐ 1987 to 1990
1 ☐ 1985 or 1986
2 ☐ 1982 to 1984
3 ☐ 1980 or 1981
4 ☐ 1975 to 1979
5 ☐ 1970 to 1974
6 ☐ 1965 to 1969
7 ☐ 1960 to 1964
8 ☐ 1950 to 1959
9 ☐ Before 1950

9. **At any time since February 1, 1990, has . . . attended regular school or college? Include only pre-kindergarten, kindergarten, elementary school, and schooling which leads to a high school diploma or a college degree.** *If "Yes," ask —* **Public or private?**

1 ☐ No, has not attended since February 1
2 ☐ Yes, public school, public college
3 ☐ Yes, private school, private college

10. **How much school has . . . COMPLETED?** *Read categories if person is unsure. Mark (X) ONE box for the highest level COMPLETED or degree RECEIVED. If currently enrolled, mark the previous grade attended or highest degree received.*

30 ☐ No school completed
31 ☐ Pre-kindergarten
32 ☐ Kindergarten

Grades 1—11

1 ☐ 1st 4 ☐ 4th 7 ☐ 7th 10 ☐ 10th
2 ☐ 2nd 5 ☐ 5th 8 ☐ 8th 11 ☐ 11th
3 ☐ 3rd 6 ☐ 6th 9 ☐ 9th

12 ☐ 12th grade, NO DIPLOMA
13 ☐ **HIGH SCHOOL GRADUATE** - high school DIPLOMA or the equivalent (For example: GED)
14 ☐ Some college but no degree
15 ☐ Associate degree in college - Occupational program
16 ☐ Associate degree in college - Academic program
17 ☐ Bachelor's degree (For example: BA, AB, BS)
18 ☐ Master's degree (For example: MA, MS, MEng, MEd, MSW, MBA)
19 ☐ Professional school degree (For example: MD, DDS, DVM, LLB, JD)
20 ☐ Doctorate degree (For example: PhD, EdD)

11a. **Where was . . .'s father born?**

1 ☐ Puerto Rico
2 ☐ United States
3 ☐ Elsewhere — *Print name of foreign country*

11b. **Where was . . .'s mother born?**

1 ☐ Puerto Rico
2 ☐ United States
3 ☐ Elsewhere — *Print name of foreign country*

12a. *If person was born after April 1, 1985, mark (X) that box without asking 12a, and go to next person.*
Did . . . live in this house or apartment 5 years ago (on April 1, 1985)?

1 ☐ Born after April 1, 1985 — *Go to questions for the next person*
2 ☐ Yes — *Skip to 13a*
3 ☐ No

b. **Where did . . . live 5 years ago (on April 1, 1985)?**
(1) *Print Puerto Rico or the name of the U.S. State or foreign country*

If foreign country, print answer above and skip to 13a.

(2) *Print the name of the municipio in Puerto Rico or the name of the county in the U.S.*

(3) *Print the name of the city, town, or village*

13a. **During the last 10 years did . . . live in the United States at any time for a period of 6 or more consecutive months?**

1 ☐ Yes 2 ☐ No — *Skip to 14*

b. **How long did . . . live in the United States during the last period of 6 or more months?**

1 ☐ 6 months to a year
2 ☐ 1 to 2 years
3 ☐ 3 to 4 years
4 ☐ 5 years
5 ☐ 6 to 9 years
6 ☐ 10 or more years

c. **When did . . . come or return to Puerto Rico after that period in the U.S.?**

1 ☐ 1990
2 ☐ 1989
3 ☐ 1988
4 ☐ 1987
5 ☐ 1986
6 ☐ 1985
7 ☐ 1984
8 ☐ 1983
9 ☐ 1980 to1982

d. **During the last period . . . lived in the United States for 6 or more months, what was . . .'s main activity?**

1 ☐ In the U.S. Armed Forces
2 ☐ Working at a job or business (either full or part time)
3 ☐ Attending school or college
4 ☐ Something else

14. **Does . . . know how to read and write (in any language)?**

1 ☐ Yes 2 ☐ No

15a. **Can . . . speak Spanish?**

1 ☐ Yes 2 ☐ No

b. **Can . . . speak English?** *If "Yes," ask —* **Does . . . speak English easily or with difficulty?**

1 ☐ Yes, easily
2 ☐ Yes, with difficulty
3 ☐ No

16. INTERVIEWER CHECK ITEM
Mark (X) ONE box based on question 4.

1 ☐ Born before April 1, 1975 — *Go to 17*
2 ☐ Born April 1, 1975 or later — *Go to questions for the next person*

17. *If this person is a female, ask —*
How many babies has . . . ever had, not counting stillbirths? Do not count stepchildren or children . . . has adopted.

0 ☐ None
1 ☐ 1
2 ☐ 2
3 ☐ 3
4 ☐ 4
5 ☐ 5
6 ☐ 6
7 ☐ 7
8 ☐ 8
9 ☐ 9
10 ☐ 10
11 ☐ 11
12 ☐ 12 or more

18a. **Has . . . ever been on active-duty military service in the Armed Forces of the United States or ever been in the United States military Reserves or the National Guard? "Active duty" does NOT include training for the military Reserves or National Guard.**

1 ☐ Yes, now on active duty
2 ☐ Yes, on active duty in past, but not now
3 ☐ Yes, service in Reserves or National Guard only — *Skip to 19*
4 ☐ No — *Skip to 19*

b. **Did . . . serve on active duty during —**
Read each category and mark (X) each box for which the answer is "Yes."

1 ☐ September 1980 or later
2 ☐ May 1975 to August 1980
3 ☐ Vietnam era (August 1964—April 1975)
4 ☐ February 1955—July 1964
5 ☐ Korean conflict (June 1950—January 1955)
6 ☐ World War II (September 1940—July 1947)
7 ☐ World War I (April 1917—November 1918)
8 ☐ Any other time

c. **In total, how many years of active-duty military service has . . . had?**

Years

19. **Does . . . have a physical, mental, or other health condition that has lasted for 6 or more months and which —**

a. **Limits the kind or amount of work . . . can do at a job?**

1 ☐ Yes 2 ☐ No

b. **Prevents . . . from working at a job?**

1 ☐ Yes 2 ☐ No

20. **Because of a health condition that has lasted for 6 or more months, does . . . have any difficulty —**

a. **Going outside the home alone, for example, to shop or visit a doctor's office?**

1 ☐ Yes 2 ☐ No

b. **Taking care of his or her own personal needs, such as bathing, dressing, or getting around inside the home?**

1 ☐ Yes 2 ☐ No

21a. **Has . . . completed the requirements for a vocational training program at a trade school, business school, hospital or some other kind of school for occupational training? Do not include academic college courses.**

1 ☐ Yes 2 ☐ No — *Skip to 22a*

b. **At which kind of school was the training received?**

1 ☐ Business school, trade school or junior college
2 ☐ High school vocational program
3 ☐ Training program at place of work
4 ☐ Other school — *Specify*

22a. **Did . . . work at any time LAST WEEK, either full time or part time? Work includes part-time work such as delivering papers, or helping without pay in a family business or farm; it also includes active duty in the U.S. Armed Forces. Work does NOT include own housework, school work, or volunteer work.**

1 ☐ Yes 2 ☐ No — *Skip to 26*

b. **How many hours did . . . work LAST WEEK at all jobs? Subtract any time off and add any overtime or extra hours worked.**

Hours

23a. Where did . . . usually work LAST WEEK?
If . . . worked at more than one location, ask — Where did . . . work most last week?

1 ☐ In U.S. State or foreign country — *Skip to 23d*
2 ☐ In Puerto Rico — *Continue with 23b*

b. What is the name of the city, town, or village?

c. What is the name of the municipio?

Skip to 24a

d. What is the name of the U.S. State or foreign country?

24a. What type of transportation did . . . usually use to get to work LAST WEEK? *If more than one method of transportation usually was used during the trip, mark (X) the box of the one used for most of the distance.*

1 ☐ Car, truck, or van
2 ☐ Bus
3 ☐ Público
4 ☐ Ferryboat
5 ☐ Taxicab
6 ☐ Motorcycle
7 ☐ Bicycle
8 ☐ Walked
9 ☐ Worked at home — *Skip to 29*
10 ☐ Other method

Ask only if "car, truck, or van" is marked in 24a.

b. How many people, including . . . , usually rode to work together LAST WEEK?

1 ☐ Drove alone
2 ☐ 2 people
3 ☐ 3 people
4 ☐ 4 people
5 ☐ 5 people
6 ☐ 6 people
7 ☐ 7 to 9 people
8 ☐ 10 or more people

25a. What time did . . . usually leave home to go to work LAST WEEK? "Usually" means on most days last week.

1 ☐ a.m.
2 ☐ p.m.

b. How many minutes did it usually take . . . to get from home to work LAST WEEK?

Minutes — *Skip to 29*

26. Was . . . on layoff from a job or business LAST WEEK?

If "No," ask — Was . . . temporarily absent or on vacation from a job or business last week?

1 ☐ Yes, on layoff
2 ☐ Yes, on vacation, temporary illness, labor dispute, etc.
3 ☐ No

27a. Has . . . been looking for work during the last 4 weeks?

1 ☐ Yes
2 ☐ No — *Skip to 28*

b. Could . . . have taken a job LAST WEEK if one had been offered?

If "No," ask — For what reason?

1 ☐ No, already has a job
2 ☐ No, temporarily ill
3 ☐ No, other reasons (in school, etc.)
4 ☐ Yes, could have taken a job

28. When did . . . last work, even for a few days?

1 ☐ 1990
2 ☐ 1989
3 ☐ 1988
4 ☐ 1985 to 1987 — *Go to 29*
5 ☐ 1980 to 1984
6 ☐ 1979 or earlier — *Skip to 33*
7 ☐ Never worked

29-31. The following questions ask about the job worked last week. If . . . had more than one job, describe the one . . . worked the most hours. If . . . didn't work, the questions refer to the most recent job or business since 1985.

29a. For whom did . . . work? *If now on active duty in the U.S. Armed Forces, mark (X) this box* → 1 ☐ *and print the branch of the Armed Forces. If not Armed Forces, print the name of the company, business or other employer.*

b. What kind of business or industry was this? Describe the activity at location where employed.

For example: hospital, newspaper publishing, mail order house, retail bakery.

c. Is this mainly manufacturing, wholesale trade, retail trade, or something else?

1 ☐ Manufacturing
2 ☐ Wholesale trade
3 ☐ Retail trade
4 ☐ Other (agriculture, construction, service, government, etc.)

30a. What kind of work was . . . doing?

For example: registered nurse, personnel manager, supervisor of order department, cake icer.

b. What were . . .'s most important activities or duties?

For example: patient care, directing hiring policies, supervising order clerks, icing cakes.

31. Was . . . — *Read list. Mark (X) ONE box.*

1 ☐ Employee of a PRIVATE FOR PROFIT company or business or of an individual, for wages, salary, or commissions
2 ☐ Employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization
3 ☐ Municipal GOVERNMENT employee (city, municipio, etc.)
4 ☐ Commonwealth GOVERNMENT employee
5 ☐ Federal GOVERNMENT employee
6 ☐ SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm
7 ☐ SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm
8 ☐ Working WITHOUT PAY in family business or farm

32a. Last year (1989), did . . . work, even for a few days, at a paid job or in a business or farm?

1 ☐ Yes
2 ☐ No — *Skip to 33*

b. How many weeks did . . . work in 1989? Count paid vacation, paid sick leave, and military service.

Weeks

c. During the weeks WORKED in 1989, how many hours did . . . usually work each week?

Hours

33. The following questions are about income received during 1989? *If an exact amount is not known, accept a best estimate. If net income in b, c, d or question 34 was a loss, write "Loss" above the dollar amount.*

a. Did . . . earn income from wages, salary, commissions, bonuses, or tips? Report amount before deductions for taxes, bonds, dues, or other items.

1 ☐ Yes — How much from all jobs? → $ .00
2 ☐ No
(Annual amount - Dollars)

b. Did . . . earn any income from (his/her) own nonfarm business, proprietorship, or partnership? Report net income after business expenses.

1 ☐ Yes — How much? → $ .00
2 ☐ No
(Annual amount - Dollars)

c. Did . . . earn any income from (his/her) own farm business? Include earnings as a tenant farmer or sharecropper. Report net income after operating expenses.

1 ☐ Yes — How much? → $ .00
2 ☐ No
(Annual amount - Dollars)

d. Did . . . receive any interest, dividends, net rental or royalty income, or income from estates and trusts? Include even small amounts credited to an account.

1 ☐ Yes — How much? → $ .00
2 ☐ No
(Annual amount - Dollars)

e. Did . . . receive any Social Security or Railroad Retirement payments? Include payments as a retired worker, dependent, or disabled worker.

1 ☐ Yes — How much? → $ .00
2 ☐ No
(Annual amount - Dollars)

f. Did . . . receive any income from government programs for Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), food stamps, or other public assistance or public welfare payments?

1 ☐ Yes — How much? → $ .00
2 ☐ No
(Annual amount - Dollars)

g. Did . . . receive any income from retirement, survivor, or disability pensions? Include payments from companies, unions, Federal, State, and local governments, and the U.S. military. Do NOT include Social Security.

1 ☐ Yes — How much? → $ .00
2 ☐ No
(Annual amount - Dollars)

h. Did . . . receive any income from Veterans' (VA) payments, unemployment compensation, child support or alimony, or any other regular source of income? Do NOT include lump-sum payments such as money from an inheritance or the sale of a home.

1 ☐ Yes — How much? → $ .00
2 ☐ No
(Annual amount - Dollars)

34. *Do not ask this question if 33a through 33h are complete. Instead, sum these entries and enter the amount below.*

What was . . .'s total income in 1989?

0 ☐ None OR $ .00
(Annual amount - Dollars)

Please turn to the next page and ask the questions for Person 2 on page 2. If this is the last person listed in question 1a on page 1, go to the back of the form.

CHECKLIST
AFTER THE INTERVIEW

DID YOU —

1. ☐ Complete all appropriate items on the front cover?

2. ☐ Complete as many of the census questions as possible, including the last resort questions?

3. ☐ Complete the FOR ENUMERATOR USE section on page 3?

4. ☐ Sign (certify) the questionnaire on the front cover?

5. ☐ Make the necessary entries on the address listing page and map(s)?

CENSUS '90

APPENDIX F.
Data Products and User Assistance

CONTENTS

Data Products F–1
Geographic Products F–2
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Sources of Assistance F–5

The 1990 census data products for Puerto Rico, being released during 1991-93, are available in a variety of new and traditional media. The Census Bureau has increased the product options available to data users to meet a variety of requirements and maximize the usefulness of the data. For example, laser discs, called CD-ROM (compact disc—read-only memory), are a new data delivery medium.

The Census Bureau also expanded services and sources of assistance available to data users. For example, the data center program has over 1,400 organizations (including 25 in Puerto Rico) to provide data and services to the public.

This appendix provides a detailed introduction to the 1990 census data products and related materials, such as maps and reference publications. It concludes by describing sources of assistance and other Census Bureau data available to the public.

DATA PRODUCTS

Printed reports and computer tape files traditionally are the most widely used products. The Census Bureau also offers data on microfiche, on CD-ROM laser discs, and through its online service, CENDATA™. These various products are described below. For information about prices and how to order, write or call Customer Services. (See the "Sources of Assistance" section for the address and phone number.)

The data products present statistics about the subjects covered in the 1990 census questionnaires for Puerto Rico. These subjects are listed in figure 1, page F–7. As the figure shows, there are 100-percent subjects (those covered in questions asked of everyone or about every housing unit) and sample subjects (those covered in questions asked at about one out of every six housing units). Generally, a data product presents either 100-percent data prepared by tabulating the responses to the 100-percent questions from all questionnaires, or sample data prepared by tabulating only the responses to the 100-percent and sample questions from the "long-form" questionnaires. One report, 1990 CPH-3, (see figure 2, page F–8), presents both 100-percent and sample data.

Printed Reports

Printed reports are the most convenient and readily available source of data for most census users. The Census Bureau releases the reports in several series (see figure 2) that are grouped under three broad titles: *1990 Census of Population and Housing* (1990 CPH), *1990 Census of Population* (1990 CP), and *1990 Census of Housing* (1990 CH). In addition, there are reports, not reflected in figure 2, for the United States, the Virgin Islands of the United States, and the Pacific territories under U.S. jurisdiction. The reports are sold by the Superintendent of Documents, U.S. Government Printing Office. (See the "Sources of Assistance" section for the address and phone number.)

The content and geographic coverage of the Puerto Rico reports are listed in figure 2. Report series that present data for small areas, such as census tracts, contain limited subject-matter detail (for example, counts of people by age ranges—under 5 years, 5 to 9 years, etc.—rather than by single years). Report series that include greater amounts of subject-matter detail include less geographic detail.

Computer Tape Files

The Census Bureau provides more data on tape and other machine-readable products than in printed reports. These products are sold by the Census Bureau's Customer Services. There are several general types of data files released on computer tape (available on both reels and cartridges). They are introduced below, and more information is presented in figures 3 and 4, pages F–10 and F–11.

Redistricting Data—This data file presents the counts designed and formatted for use in legislative redistricting. These counts also are available on CD-ROM and paper listings. Excerpts are available on CENDATA™. The counts, for areas as small as blocks, census tracts, and voting districts, include totals for population, population 18 years old and over, and housing units. (See figure 4.)

Summary Tape Files (STF's)— These computer tape files provide statistics with greater subject-matter detail than printed reports. They also present statistics for some types of areas, such as block groups and blocks, that are not included in the reports. (See figure 3.)

Here are some important features of STF's:

- Each STF presents a particular set of data tables for specific types of geographic areas.
- Most STF's have two file types (indicated by a letter suffix attached to the STF number) that differ in the geographic levels reported, but contain the same data detail.
- STF's 1 and 2 contain 100-percent data, and STF's 3 and 4 contain sample data.
- STF's 1 and 3 report on smaller areas and offer less data detail than STF's 2 and 4.
- STF's 1 through 4 offer greater data detail than the 1980 STF's 1 through 4.

Public Use Microdata Sample (PUMS) Files—These computer tape files (see figure 4) contain data from samples of long-form housing-unit records ("microdata") for large geographic areas. Each sample housing-unit record includes essentially all the 1990 census data collected about each person in a sample household and the characteristics of the housing unit. Information that could be used to identify an individual or a housing unit is not included in the file.

Microdata files enable users to prepare customized tabulations and cross-tabulations of most items on the census questionnaire. There are two PUMS files:

- A file presenting a 5-percent sample of housing units in which each household record includes codes to let the user know in what area, such as a single municipio, a group of municipios, or a place, the household is located. Each area identified must have a population of at least 100,000.
- A file presenting a 1-percent sample of housing units. Its household records include codes associating them with metropolitan areas (MA's). (For the 1980 census, there were two files with 1-percent samples. The 1-percent sample showing data for selected urbanized areas and other large areas will not be produced for the 1990 census.)

Other Special Computer Tape Files—Other files include the Census/ Equal Employment Opportunity (EEO) File and the County-to-County Migration File. (See figure 4.) The Census Bureau may prepare additional special files.

Microfiche

All printed reports are offered on microfiche from Customer Services soon after they are published. Also, STF 3A for Puerto Rico is offered on microfiche. Plans to prepare microfiche versions of selected other products were canceled, so that more products could be produced on CD-ROM.

Compact Disc—Read-Only Memory (CD-ROM)

For the 1990 census, the Puerto Rico Redistricting file, an extract of STF 1B that presents selected statistics for blocks, and STF's 1A and 3A also are available on CD-ROM. The Census Bureau also offers on CD-ROM: PUMS Files and Census EEO File. (One 4 3/4-inch CD-ROM, a type of optical or laser disc, can hold the contents of approximately 1,600 flexible diskettes, or three or four high-density computer tapes.)

Online Information Systems

The Census Bureau began CENDATA™, its online information service, in 1984. CENDATA™ is accessible through two information vendors, CompuServe and DIALOG. A number of Census Bureau reports, in whole or in part, are offered online. For the 1990 census, CENDATA™ provides up-to-date information about the availability of data products and carries selections of municipio, MA, and place data from the Redistricting Data tape file and STF's 1 and 3.

Custom Data Products

These products are for users who require unique tabulations that are not included in standard products; for example, information for locally defined geographic areas. Users also can order special microdata files.

The cost of preparing custom products must be paid by the users who request them. Any data that the Census Bureau provides in these products are subject to the same standards applied to other data to ensure that confidential individual information is not revealed.

User-Defined Areas Program (UDAP) Tabulations—UDAP can provide a set of predefined data tables for locally defined areas that do not correspond to standard 1990 census geographic areas. Users identify the geographic areas of interest to them by delineating boundaries around groupings of census blocks on 1990 census block maps or by electronically submitting the geographic components of their area of interest. (A contact for more information is given in the "Sources of Assistance" section.)

Special Tabulations—The Census Bureau can prepare special data tabulations for any specific geographic or subject-matter area. Users should rely on standard reports, tapes, CD-ROM, microfiche, or user-defined area tabulations whenever possible, since special tabulations tend to be substantially more expensive and take time to arrange and produce. (Contacts for more information are given in the "Sources of Assistance" section.)

GEOGRAPHIC PRODUCTS

Maps

Census Bureau maps are necessary for virtually all uses of small-area 1990 census data. They are needed to locate the specific geographic areas for which the

census provides data and to study the spatial relationship of the data for analytic purposes. The Census Bureau prepares a variety of 1990 census maps. Among the most useful are these series:

County Block Maps—These maps show census blocks and their numbers; boundaries for statistical and governmental entities, such as census tracts and places; and physical features. The maps are prepared on electrostatic plotters by municipio (Puerto Rico's equivalent of a county for reporting statistics) with one or more map sheets each, depending on the size and shape of the area and the density of the block pattern. The maps may be purchased from Customer Services.

County Subdivision Outline Map—This map of Puerto Rico presents the names and boundaries of the municipios, municipio subdivisions (barrios-pueblos, barrios, and subbarrios), and places. Electrostatic-plotter copies are available for purchase from Customer Services. Also, the map is printed on multiple page-size sheets in the following Puerto Rico reports: 1990 CPH-1-53, 1990 CPH-2-53, 1990 CPH-5-53, 1990 CP-1-53, 1990 CP-2-53, 1990 CH-1-53, and 1990 CH-2-53.

Census Tract/ Block Numbering Area (BNA) Outline Maps—Maps in this municipio-based series depict census tract or BNA boundaries and numbers, and the features underlying the boundaries. They also show the names and boundaries of the municipio subdivisions and places. The Superintendent of Documents sells printed copies.

Urbanized Area Outline/ Boundary Maps—Maps in this urbanized area-based series depict the boundaries of the urbanized area and the features underlying the boundaries. They also show the boundaries for Puerto Rico, municipio, municipio subdivisions, barrios, places, the map series subject area, and selected base features and their names at a small scale. Electrostatic-plotter copies are available for purchase from Customer Services. Also, they appear on multiple page-size sheets in the State reports of the 1990 CPH-2 series and the Supplementary Report, *Population and Land Area of Urbanized Areas for the United States and Puerto Rico: 1990.*

Voting District Outline Maps—Maps in this municipio-based series depict voting district boundaries and the features underlying the boundaries. They also show the boundaries and names of municipio subdivisions and places. They are prepared on electrostatic plotters and sold by Customer Services.

Geographic Publications

The *Geographic Identification Code Scheme* report in the 1990 CPH-R series will not be printed. Persons interested in this report are encouraged to use the TIGER/ GICS™ tape file (which also will be available on CD-ROM) described below. Listings similar to the tables that would have been included in the report may be offered. Contact Customer Services, Data User Services Division, Bureau of the Census, Washington, DC 20233, telephone 301-763-4100.

The *Congressional District Atlas, 103rd Congress of the United States* is a two-volume, 1,200-page atlas depicting the boundaries and number of the districts for the 103rd Congress as defined following the 1990 decennial census. This is the first Congress defined following the 1990 decennial census and, therefore, illustrates the most significant changes of the decade, including the reapportionment of the U.S. House of Representatives. Congressional district boundaries following governmental unit boundaries such as an incorporated place of a minor civil division, are illustrated using symbology identified in the map legend. Wherever possible, features used as congressional district boundaries are identified by their feature name or their feature type. The Census Bureau may produce subsequent atlases if court ordered or State mandated redistricting creates new congressional district boundaries. The Atlas is sold by the Superintendent of Documents (stock no. 003-024-08683-2; $42).

Machine-Readable Geographic Files

All 1990 census summary tape files include 1990 census geographic area codes, FIPS codes, certain area names, land and total water area in square kilometers, geographic coordinates for an internal point for each entity, and other geographic information.

The Census Bureau developed an automated geographic data base, known as the TIGER (Topologically Integrated Geographic Encoding and Referencing) System, to produce the geographic products for the 1990 census. TIGER provides coordinate-based digital map information for Puerto Rico, the entire United States, the Virgin Islands, and the Pacific territories under U.S. jurisdiction.

The TIGER System has significantly improved the utility of 1990 census maps and geographic reference products. Extract files generated from the TIGER System permit users, with appropriate software, to perform such tasks as linking the statistical data in the Redistricting Data file or the STF's and displaying selected characteristics on maps or a video display screen at different scales and with whatever boundaries they select for any geographic area included in TIGER. For example, a map for a particular municipio could show the distribution of the voting age population by block.

The first extract of selected geographic and cartographic information intended for computer applications, such as plotting maps and building geographic information systems, is called the TIGER/ Line™ files. TIGER/ Line™ files (released on tape and CD-ROM) contain

attributes for the segments of each boundary and feature (for example, roads and rivers), including 1990 census geographic codes for adjacent areas, latitude/ longitude coordinates of segment end points and the curvature of segments, the name and type of the feature, and the relevant census feature class code identifying the feature segment by category. TIGER/ Line™ files also furnish address ranges and associated ZIP Codes for each side of street segments that have city-style (house number/ street name) addresses; provide the names of landmarks, such as lakes and golf courses; and include other information. The 1992 version also includes school district codes, 1990 census urbanized area codes, codes for districts of the 103rd Congress, and address range coverage expanded to include all areas that have city-style addresses.

TIGER/ GICS™ file is another extract. This file contains a total of 12 files, organized on a national or State-by-State basis, for a variety of geographic entities, such as metropolitan areas and their components as of the 1990 census, 1990 census urbanized areas and their components, American Indian and Alaska Native areas and their related states and counties, as well as more familiar entities including counties with their county subdivisions and places. This file contains high-level geographic names, codes, and relationship information. It can be used to link geographic entity names to the codes in the TIGER/ Line™, TIGER/ SDTS™ and other TIGER extract files. It also contains 1990 census population and housing counts, population density (CD-ROM version only, but can be calculated using the tape version), and area measurement information (including land area, total water area and separate measurements for each of the four components of water—Inland, Great Lakes, Coastal, and Territorial), as well as the latitude and longitude for an internal point within each geography entity. The TIGER/ GICS™ also includes corrections to names for selected entities and corrections to the FIPS 55 codes for county subdivisions and places. The first 300 characters of each record in this file are the same as those in the Data Dictionary for the Summary Tape Files; and additional 100 characters provide the above mentioned corrections and components of water. Listings of the files in the TIGER/ GICS™ may be offered. Call Customer Services at 301-763-4100.

Other TIGER System extracts, such as TIGER/ Census Tract Comparability™ file and TIGER/ UA Limit file, are released on computer tape and, in some cases, CD-ROM. For information on TIGER extract files, contact Customer Services.

REFERENCE MATERIALS

The Census Bureau issues several reference publications for data users. Some are sold by the Superintendent of Documents; others are distributed free by Customer Services. Addresses and phone numbers for the Superintendent of Documents and Customer Services are given in the following section.

- *1990 Census of Population and Housing, Guide.* This guide, in the 1990 CPH-R report series, provides detailed information about all aspects of the census and a comprehensive glossary of census terms. Sold by the Superintendent of Documents, U.S. Government Printing Office. (Part A, Text: stock no. 003-024-08574-7, $11. Part B, Glossary: stock no. 003-024-08679-4, $5.50.)
- *1990 Census of Population and Housing Tabulation and Publication Program for Puerto Rico.* A free report describing 1990 census products for Puerto Rico, comparing 1990 products with those of the 1980 census, and more. Request from Customer Services.
- *1990 Census of Population and Housing Tabulation and Publication Program.* A free report describing 1990 census products for the States, comparing 1990 products with those of the 1980 census, and more. Request from Customer Services.
- *Census ABC's—Applications in Business and Community.* A free booklet that highlights key information about the 1990 census and illustrates a variety of ways the data can be used. Request from Customer Services.
- *Maps and More.* A free, tabloid-size booklet that describes the geographic entities for which the Census Bureau tabulates data. The booklet provides information on the types of geographic entities, how their boundaries are established, and how they relate to each other. It also covers how these entities differ among the censuses and surveys and describes the geographic products available from the Census Bureau Request from Customer Services.
- *Strength in Numbers.* A free, tabloid-size booklet designed to assist people in using 1990 census data in redistricting. Among other features, it includes illustrations of maps and redistricting counts. It does not deal directly with Puerto Rico geography and census products, but it should still be of help in redistricting. Request from Customer Services.
- *TIGER: The Coast-to-Coast Digital Map Data Base.* A free booklet describing the structure and uses of the Census Bureau's TIGER System. Request from Customer Services.
- *Census and You.* The Census Bureau's monthly newsletter for data users. It reports on the latest 1990 census developments, selected new publications and computer tape files, other censuses and surveys, developments in services to users, and upcoming conferences and training courses. Subscriptions are sold by the Superintendent of Documents, U.S. Government Printing Office.

- *Monthly Product Announcement.* A free monthly listing of all new Census Bureau publications; microfiche; maps; data files on tape, diskettes, or CD-ROM; and technical documentation. To subscribe, contact Customer Services.
- *Census Catalog and Guide.* A comprehensive annual description of data products, statistical programs, and services of the Census Bureau. It provides abstracts of the publications, data files, microfiche, maps, and items online. In addition, the Catalog/ Guide offers such features as information about censuses and surveys and telephone contact lists of data specialists at the Census Bureau, the State Data Centers, and other data processing service centers. It is sold by the Superintendent of Documents, U.S. Government Printing Office.

Users also can get listings of new Census Bureau products, updated daily, by subscribing to the *Daily List.* This information and selected statistics are available online through CENDATA™, the Census Bureau's online information service. For more information, contact Customer Services.

SOURCES OF ASSISTANCE

U.S. Bureau of the Census

The Census Bureau's Customer Services sells most of the machine-readable data products, microfiche, and maps described earlier. (The 1990 census printed reports are sold by the Superintendent of Documents.) Also, users may consult with specialists at the Census Bureau's Washington headquarters and the New York regional office, which serves Puerto Rico. From time to time, the specialists also conduct workshops, seminars, and training courses.

Washington, DC Contacts—To order products, for a telephone contacts list of Census Bureau specialists, and for general information: Customer Services, U.S. Bureau of the Census, Washington, DC 20233, telephone 301-763-4100 (FAX number, 301-763-4794).

For User-Defined Areas Program (UDAP) information: UDAP Staff, Decennial Management Division, U.S. Bureau of the Census, Washington, DC 20233, telephone 301-763-4282.

For special tabulation information: Population—Rosemarie Cowan, Population Division, U.S. Bureau of the Census, Washington, DC 20233, telephone 301-763-5476; Housing—William Downs, Housing and Household Economic Statistics Division, U.S. Bureau of the Census, Washington, DC 20233, telephone 301-763-8553.

Regional Office Contact—

New York, NY	212-264-4730

Superintendent of Documents, U.S. Government Printing Office

The Superintendent of Documents handles the sale of most of the Federal Government's publications, including 1990 census reports. To order reports and for information: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, telephone 202-783-3238.

Other Sources of Products and Services

State Data Centers—The Census Bureau furnishes data products, training in data access and use, technical assistance, and consultation to Puerto Rico, all States, the District of Columbia, Guam, and the Virgin Islands. Data centers, in turn, offer publications for reference, printouts from computer tape, specially prepared reports, maps, and other products and assistance to data users. The lead agency of the Puerto Rico data center program is the Junta de Planificación, Centro Gubernamental Minillas, P.O. Box 41119, San Juan, PR 00940–9985, telephone 809-728-4430. For a list of all State Data Centers, see the *Census Catalog and Guide* or contact Customer Services.

Census Information Center (CIC)—The CIC program provides data-related services for nationally based nonprofit organizations that represent minorities or other segments of the population who have been historically undercounted in decennial censuses. The participants include social service, business, professional, civil rights, educational, and religious groups. Through the project, five nonprofit groups now offer their clientele reports, computer tape printouts, and other information from the Census Bureau. To learn more about the program, write to the Data User Services Division, Bureau of the Census, Washington, DC 20233, or call 301-763-1384.

National Clearinghouse—The National Clearinghouse for Census Data Services is a listing of private companies and other organizations that offer assistance in obtaining and using data released by the Census Bureau. For a list of participants in the National Clearinghouse, see the *Census Catalog and Guide* or contact Customer Services.

Depository Libraries—There are 1,400 libraries in the United States, Puerto Rico, and other areas that receive (from the Government Printing Office) Federal publications that they think their patrons will need. Often some of these publications are Census Bureau reports. The Census Bureau provides free reports to an additional 120 census depository libraries. Also, many libraries purchase census reports and maps for their areas. The *Census Catalog and Guide* includes a list of all depository libraries.

OTHER CENSUS BUREAU RESOURCES

The Census Bureau has more to offer than just the results of the census of population and housing for Puerto Rico, the United States, the Virgin Islands, and the Pacific territories under U.S. jurisdiction. Through other censuses, surveys, and estimates programs, it compiles and issues (in reports, computer tape, and other media) data for the United States and sometimes Puerto Rico, the Virgin Islands, and the Pacific territories on subjects as diverse as appliance sales, neighborhood conditions, and exports to other countries. Here are examples of the information published about—

- *People:* Age, race, sex, income, poverty, child care, child support, fertility, noncash benefits, education, commuting habits, pension coverage, unemployment, ancestry.
- *Business and industry:* Number of employees, total payroll, sales and receipts, products manufactured or sold.
- *Housing and construction:* Value of new construction, numbers of owners and renters, property value or rent paid, housing starts, fuels used, mortgage costs.
- *Farms:* Number, acreage, livestock, crop sales.
- *Governments:* Revenues and expenditures, taxes, employment, pension funds.
- *Foreign trade:* Exports and imports, origin and destination, units shipped.
- *Other nations:* Population, birth rates, death rates, literacy, fertility.

The other censuses, such as agriculture, retail trade, manufactures, and governments, are collected for years ending in "2" and "7." Surveys and estimates programs generate results as often as every month.

Many of the monthly "economic indicators" that measure how the Nation is doing come directly or indirectly from the Census Bureau. Examples: employment and unemployment; housing starts; wholesale and retail trade; manufacturers' shipments, inventories, and orders; export and import trade; and sales of single-family homes.

Statistical activities of the Census Bureau relevant to Puerto Rico are described below. Data users will find more information about them and descriptions of their data products in the annual *Census Catalog and Guide.* Also, special guides and brochures are prepared for most of them. Contact the Census Bureau's Customer Services for more information.

Economic Censuses and Surveys

The economic censuses provide statistics about business establishments once every 5 years, covering years ending in "2" and "7." The 1987 Economic Censuses include the censuses of retail trade, wholesale trade, service industries, transportation, manufactures, mineral industries, and construction industries.

Several key statistics are tabulated for all industries covered in the censuses. They are number of establishments, number of employees, payroll, and measure of output (sales or receipts, and value of shipments or of work done). Other items vary from sector to sector.

The County Business Patterns program offers annual statistics on payroll and number of establishments by employment-size class for municipios.

Agriculture Census

The agriculture census is conducted concurrently with the economic censuses. It is the only source of uniform agriculture data at the municipio level. It provides data on such subjects as the number and size of farms; land use and ownership; livestock, poultry, and crops; and value of products sold.

Foreign Trade Statistics

Monthly U.S. merchandise trade data compiled by the Census Bureau summarize export and import transactions and are based on the official documents filed by shippers and receivers. These figures reflect the flow of merchandise but not intangibles like services and financial commitments. The trade figures trace commodity movements out of and into the U.S. Customs jurisdiction, which includes Puerto Rico and the Virgin Islands as well as the 50 States and the District of Columbia. Data are published separately on trade between the United States and Puerto Rico, the Virgin Islands, and other U.S. territories.

Other Statistical Activities

The Census Bureau also offers international data. It maintains an international data base, which is available to the public on computer tape and is used to produce the biennial *World Population Profile* report. It prepares studies dealing with the demographic and economic characteristics of other countries and world regions.

Statistical compendia are another important data product. These publications (sometimes also offered in machine-readable form) draw data from many sources and reorganize them for convenient use. The most widely used compendia are the annual *Statistical Abstract of the United States,* the *County and City Data Book* (published every 5 years), and the *State and Metropolitan Area Data Book* (published approximately every 4 years).

Figure 1. **Content of the 1990 Census of Puerto Rico**

100-PERCENT COMPONENT

Population

Household relationship
Sex
Age
Marital status

Housing

Number of units in structure
Number of rooms in unit
Plumbing facilities
Condominium status
Tenure—owned or rented
Value of owned unit or rent paid
Vacancy characteristics

SAMPLE COMPONENT

Population

Social characteristics:
Place of birth, citizenship, and year of entry
Education—enrollment and attainment
Birthplace of parents
Migration (residence in 1985)
U.S. residency and activity during last 10 years
Ability to read and write
Ability to speak Spanish and English
Veteran status
Disability
Fertility
Vocational training

Economic characteristics:
Employment and unemployment
Place of work and commuting to work
Occupation, industry, and class of worker
Work experience and income in 1989

Housing

Farm residence
Year householder moved into residence
Year structure built
Type of construction
Source of water and method of sewage disposal
Number of bedrooms and number of bathrooms
Type of water heater
Cooking fuel
Complete kitchen facilities
Air conditioning
Telephone in unit
Vehicles available
Shelter costs, including utilities
Condition of housing unit

NOTE: Questions dealing with the subjects covered in the 100-percent component were asked of all persons and housing units. Those covered by the sample component were asked of a sample of the population and housing units.

Figure 2. **1990 Census Printed Reports for Puerto Rico**

Series	Title	Report(s) issued for	Description	Geographic areas
		1990 CENSUS OF POPULATION AND HOUSING (1990 CPH)		
		100-Percent Data		
1990 CPH-1-53	**Summary Population and Housing Characteristics**	Puerto Rico	Population and housing unit counts, and summary statistics on age, sex, household relationship, units in structure, number of rooms, plumbing facilities, tenure, value of home or monthly rent, and vacancy characteristics	Puerto Rico, its municipios, barrios-pueblos and barrios, subbarrios, and places
1990 CPH-2-53	**Population and Housing Unit Counts**	Puerto Rico	Total population and housing unit counts for 1990 and previous censuses	Puerto Rico, its municipios, barrios-pueblos and barrios, subbarrios, places, metropolitan areas (MSA's/ PMSA's and CMSA), urbanized areas (UA's), and summary geographic areas (for example, urban and rural, and metropolitan and nonmetropolitan residence)
		100-Percent and Sample Data		
1990 CPH-3	**Population and Housing Characteristics for Census Tracts and Block Numbering Areas**	For Puerto Rico, one report will be published for each MSA/ PMSA, and one for the non-metropolitan balance	Statistics on 100-percent and sample population and housing subjects	Statistics presented in a geographic hierarchy of MSA/ PMSA– municipio–place of 10,000 or more inhabitants–census tract/ block numbering area (BNA)
		Sample Data		
1990 CPH-5-53	**Summary Social, Economic, and Housing Characteristics**	Puerto Rico	Statistics generally on sample population and housing subjects	Puerto Rico, its municipios, barrios-pueblos and barrios, subbarrios, and places
		1990 CENSUS OF POPULATION (1990 CP)		
		100-Percent Data		
1990 CP-1-53	**General Population Characteristics**	Puerto Rico	Detailed statistics on age, sex, marital status, and household relationship characteristics	Puerto Rico; its municipios; metropolitan areas (MSA's/ PMSA's and CMSA); UA's; barrios-pueblos and barrios, subbarrios, and places of 1,000 or more inhabitants; and summary geographic areas
		Sample Data		
1990 CP-2-53	**Social and Economic Characteristics**	Puerto Rico	Statistics generally on sample population subjects	Puerto Rico (including summaries such as urban and rural); municipios; metropolitan areas (MSA's/ PMSA's and CMSA); UA's; and barrios-pueblos and barrios, subbarrios, and places of 2,500 or more inhabitants

Figure 2. **1990 Census Printed Reports for Puerto Rico**—Con.

Series	Title	Report(s) issued for	Description	Geographic areas
		1990 CENSUS OF HOUSING (1990 CH)		
		100-Percent Data		
1990 CH-1-53	**General Housing Characteristics**	Puerto Rico	Detailed statistics on units in structure, plumbing facilities, value and rent, number of rooms, tenure, and vacancy characteristics	Puerto Rico, its municipios; metropolitan areas (MSA's/ PMSA's and CMSA); UA's; barrios-pueblos and barrios, subbarrios, and places of 1,000 or more inhabitants; and summary geographic areas
		Sample Data		
1990 CH-2-53	**Detailed Housing Characteristics**	Puerto Rico	Statistics generally on sample housing subjects	Puerto Rico; municipios; metropolitan areas (MSA's/ PMSA's and CMSA); UA's; barrios-pueblos and barrios, subbarrios, and places of 2,500 or more inhabitants; and summary geographic areas

Figure 3. **1990 Census Summary Tape Files for Puerto Rico**

Summary Tape File (STF 1A, 1B, etc.) and data type (100 percent or sample)[1]		Geographic areas	Description
STF 1 (100 percent)	A[2]	Puerto Rico and its component areas in hierarchical sequence down to the block group level. Summaries also tabulated for whole barrios-pueblos and barrios, whole subbarrios, whole places, whole census tracts/ block numbering areas (BNA's), and whole block groups	Over 500 cells/ items of 100-percent population and housing counts and characteristics for each geographic area
	B[2]	Puerto Rico and its component areas in hierarchical sequence down to the block level. Data also provided for metropolitan areas (MSA's/ PMSA's and CMSA), UA's, and summary geographic areas (for example, urban and rural)	
STF 2 (100 percent)	A	Data for census tracts/ BNA's in metropolitan areas and in the remainder of Puerto Rico in a geographic hierarchy of municipios–places of 10,000 or more inhabitants–census tract/ BNA. It also presents census tract/ BNA summaries for split tracts/ BNA's	Over 2,700 cells/ items of 100-percent population and housing counts and characteristics for each geographic area
	B	Puerto Rico; municipios; metropolitan areas (MSA's/ PMSA's and CMSA); UA's; barrios-pueblos and barrios, subbarrios, and places of 1,000 or more inhabitants; and summary geographic areas (for example, urban and rural)	
STF 3 (Sample)	A[2 3]	Puerto Rico and its subareas in hierarchical sequence down to the block group level. Separate summaries provided for metropolitan areas (MSA's/ PMSA's and a CMSA), UA's, whole barrios-pueblos and barrios, whole subbarrios, whole places, whole census tracts/ BNA's, and whole block groups	Over 1,800 cells/ items of sample population and housing characteristics for each geographic area
STF 4 (Sample)	A	Data for census tracts/ BNA's in metropolitan areas and in the remainder of Puerto Rico in a geographic hierarchy of municipios–places of 10,000 or more inhabitants–census tract/ BNA. It also presents census tract/ BNA summaries for split tracts/ BNA's	Over 3,600 cells/ items of sample population and housing characteristics for each geographic area
	B	Puerto Rico; municipios; metropolitan areas (MSA's/ PMSA's and CMSA); UA's; barrios-pueblos and barrios, subbarrios, and places of 2,500 or more inhabitants; and summary geographic areas	

Note: STF 420 Place of Work 20 Destinations File for Puerto Rico. This is a new file for 1990. Comparable data were included as part of STF 4 in 1980, but for 1990 this is a separate file and must be ordered and purchased separately from STF 4. The file contains 20 place of work destinations for each municipio, barrio-pueblo or barrio, place of 10,000 or more persons, and census tract or block numbering area. The geographic level of the destinations varies. A destination may be a place, municipio, balance of municipio, metropolitan area, or balance of metropolitan area.

[1]Similar STF's will be prepared for States, the District of Columbia, and the U.S. Virgin Islands.
[2]Also available on laser disc (CD-ROM). STF 1B CD-ROM presents an extract of STF 1B.
[3]Also available on microfiche.

Figure 4. **Other 1990 Census Data Products for Puerto Rico**

Title	Description	Geographic areas
Special Supplementary Report—Detailed Population and Housing Characteristics	A series of cross-tabulations of detailed population and housing data	Puerto Rico
Puerto Rico Redistricting Data Project	Counts for the total population and population 18 years old and over, and counts of housing units (total, occupied, and vacant). Available on tape, CD-ROM, and paper listings	Puerto Rico, municipios, barrios-pueblos and barrios, subbarrios, places, census tracts/block numbering areas, block groups, blocks, and voting districts
Census/Equal Employment Opportunity (EEO) File	This special computer tape file will provide sample census data to support affirmative action planning for equal employment opportunity. The file will contain tabulations showing detailed occupations and educational attainment data by age. These data also will be cross-tabulated by sex	Municipios, MA's, places of 50,000 or more inhabitants
County-to-County Migration File	This file will provide summary statistics for Puerto Rico migration streams. Each record will include codes for the geographic area of origin, codes for the geographic area of destination, and selected characteristics of the persons who made up the migration stream	Municipios
Public Use Microdata Sample (PUMS) Files	Machine-readable files containing a sample of individual long-form census records showing most population and housing characteristics but with identifying information removed	
5 Percent—PUMS Municipio Groups		Municipio groups or smaller areas with 100,000 or more inhabitants
1 Percent—Metropolitan Areas (1990)		MA's that will be used in the 1990 census
User-Defined Areas Tabulations	A set of standard tabulations provided on printouts, tapes, or other products with maps and narrative (if requested)	User-defined areas created by aggregating census blocks
Special Tabulations	User-defined tabulations for specified geographic areas provided on printouts, tapes, or other products	User-defined areas or standard areas

APPENDIX G.
Maps

CONTENTS

Census Tract/Block Numbering Area Outline Map Sample ---- G–4
County Block Map Sample ---- G–3
County Subdivision Map Sample ---- G–5
Legend ---- G–2
Map Descriptions ---- G–1
Terminology ---- G–1

There are three map series that relate to the geographic entities for which the Census Bureau provides statistics in the STP 19 (Puerto Rico) data tapes. Copies of county block maps and county subdivision maps will be reproduced on electrostatic plotters in response to orders received by Customer Services, Data User Services Division, Bureau of the Census, Washington, DC 20233 (301) 763-4100. Census tract/block numbering area outline maps may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

MAP DESCRIPTIONS

County Block Maps—These maps depict each county on one or more map sheets at various scales, depending on the county's areal size and the density of the block pattern. (Most counties include multiple map sheets, including inset maps for densely settled areas.) The maps display block numbers and feature identifiers as well as the boundaries, names, and codes for the legal and statistical entities in the county. Each county includes an index map sheet that shows the locations of the map sheets comprising the county set.

Census Tract/Block Numbering Area Outline Maps—These county-based maps depict the boundaries and codes of census tracts or block numbering areas, the features and feature names underlying the boundaries, and the boundaries and names of counties, county subdivisions, places, and American Indian/Alaska Native areas. Map scales vary to minimize the number of sheets. The maps may include one or more insets for densely settled areas.

County Subdivision Maps—These State-based maps depict the boundaries and names of all counties and statistically equivalent areas, county subdivisions, and places. (The Census Bureau also will publish sectionalized versions of these maps in most 1990 census reports.)

TERMINOLOGY

Refer to appendix A for an explanation of the types of areas. Two terms used in the legend require explanation:

Asterisk(*)—A symbol following a block number to indicate the block number is repeated elsewhere in the block or is shown partially on an adjacent map sheet or on an inset map.

Fishhook(⇜⇝)—A map symbol drawn across a physical feature (creek, brook, etc.) or boundary on census maps to show that the areas on both sides of the feature or boundary belong to the same census block.

Legend

LEGEND

SYMBOL DESCRIPTION	SYMBOL	NAME STYLE	FIPS CODE	CENSUS CODE
International	★★★★★★★★★	CANADA		
American Indian Reservation	⧗⧗⧗⧗⧗⧗⧗⧗⧗	CAMPO RSVN	10522	(0450)
Trust Land	⧗⧗⧗⧗⧗⧗⧗⧗⧗		10522	(0450T)
Alaska Native Regional Corporation	♦♦♦♦♦♦♦♦♦	ALEUT ANRC		(14)
Alaska Native Village Statistical Area, Tribal Jurisdiction Statistical Area, or Tribal Designated Statistical Area	♦♦♦♦♦♦♦♦♦	KAW TJSA	38870	(5340)
State[1]	▰▰▰▰▰▰▰▰▰	NEW YORK	(36)	
County[1]	▣▣▣▣▣▣▣▣▣	ERIE COUNTY	(029)	
Minor Civil Division[2]	●●●●●●●●●	YORK TWP	83908	(070)
Census County Division	●●●●●●●●●	*KULA DIV*	*91890*	*(030)*
Incorporated Place	●●●●●●●●●	Rome City	63418	(3120)
Census Designated Place	●●●●●●●●●	*Zena*	*84187*	*(4100)*
Voting District[3]	▲▼▲▼▲▼▲▼▲	C004		
Corporate Corridor	○○○○○○○○○	1680		
Census Tract or Block Numbering Area	▬▬▬▬▬	5702.01		
Block Number (With Asterisk)[4]	388*			
Fishhook[5]	⟷			
Crew-of-Vessel	↕Tract ↕Block	↕2130.99 ↕9012		

Note: An international boundary also depicts a state boundary and a county boundary; a state boundary also depicts a county boundary. The symbols for all other coincident boundaries are shown alternately. The voting district symbol alternates with all other coincident boundaries as shown in the example:
e.g.: ▼▣▲●▼⊘△▣▼

FEATURE	SYMBOL	NAME STYLE
Interstate Highway and Limited Access Road[6]	▬▬▬	Interstate 635
Other Highway[6]	▬▬▬	Rte 101
City Street, Other Connecting Road, or Dirt Road[6]	———	Marsh Ln
Jeep Trail, Walkway, or Stairway		Labelle Walk
Railroad	⊣⊣⊣⊣⊣⊣⊣	
Ferry Crossing	FERRY	
Pipeline or Power Transmission Line	●———●——	
Ridge, Fence, Canyon, or Other Physical Feature	—·—·—·—·—	RIDGE
Nonvisible Boundary or Other Feature Not Elsewhere Classified	·····	PROPERTY LINE
Perennial Stream, or Shoreline of Perennial Water Body		*Tumbling Creek*
Intermittent Stream, or Shoreline of Intermittent Water Body		*Piney Creek*
Large River, Lake, or Other Water Body		*Pleasant Lake*
Military Installation	N/A	Fort Belvoir
Park (National, State, or Local)		Yosemite
Mountain Peak	▲	*Pikes Peak*
Inset Area	A	

[1] State or County; or their equivalent area for statistical purposes.

[2] A five-spoked asterisk following a minor civil division indicates that the minor civil division is coextensive with an incorporated place and has the same name.

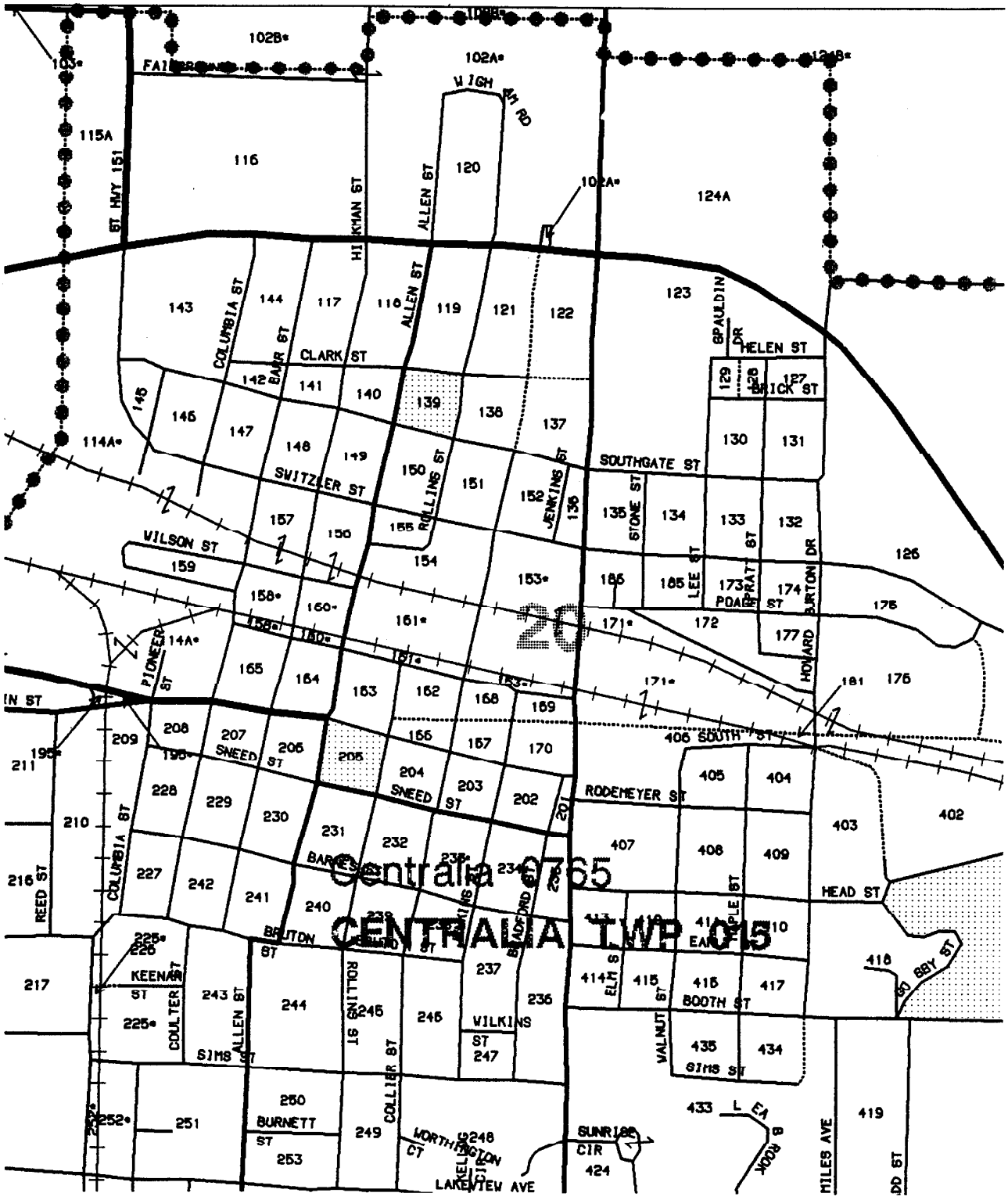
[3] If an asterisk follows a voting district code, then the state participant identified this as a true voting district, and the boundary shown on the map represents the actual boundary of the voting district. If an asterisk does not follow the voting district code, then the state participant moved the voting district boundary to coincide with a nearby census block boundary (a 1990 census program requirement for tabulation purposes only). If there are no asterisks shown within an entire county, the state participant chose not to distinguish between the two types of voting districts for that county.

[4] An asterisk following a block number indicates that the block number is repeated elsewhere in the block or is shown partially on an adjacent map sheet.

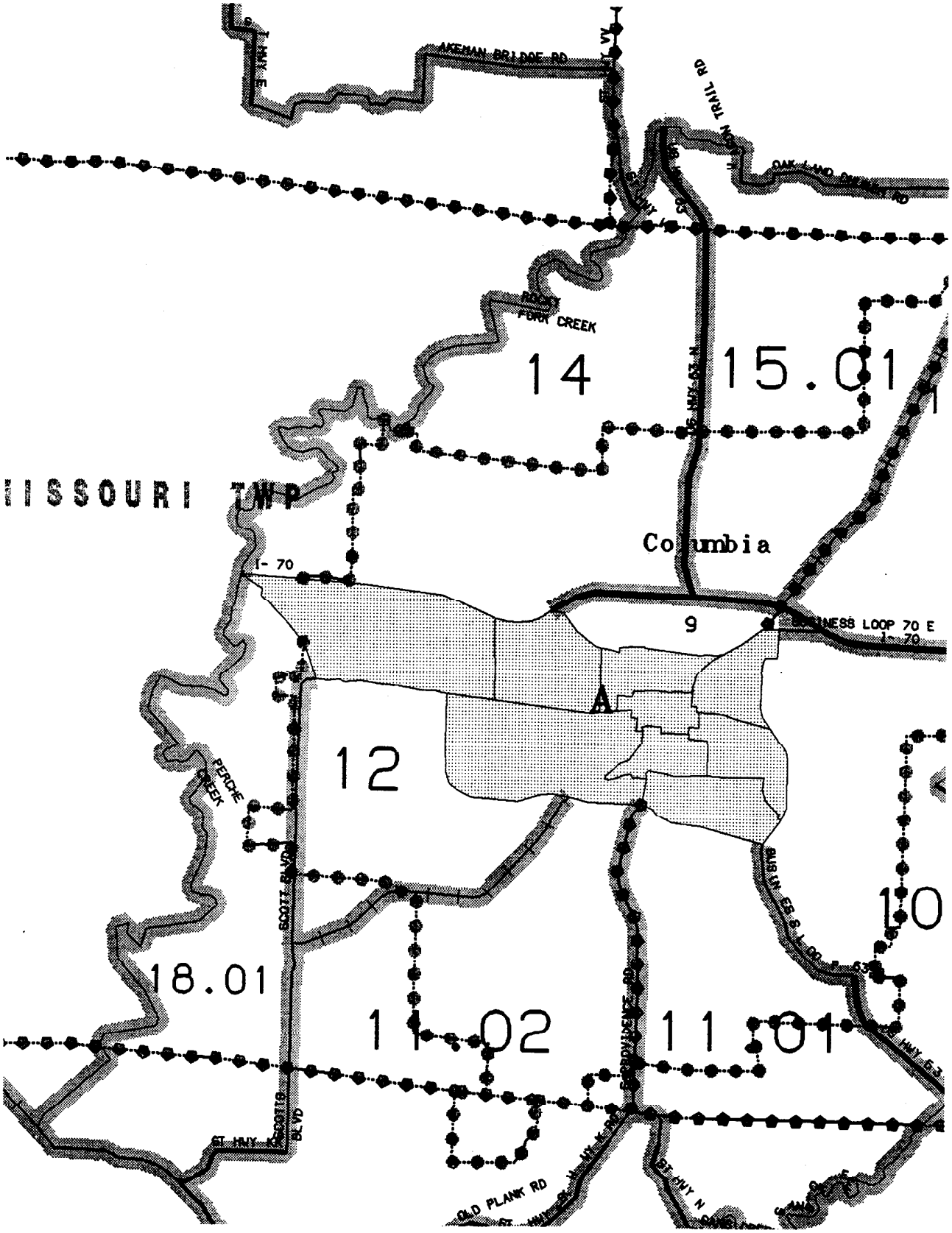
[5] A fishhook across a map feature or boundary indicates that the areas on both sides of the feature or boundary belong to the same census block.

[6] A % symbol indicates that there was insufficient space to plot a road name. Road names in parentheses indicate that the road has more than one name.

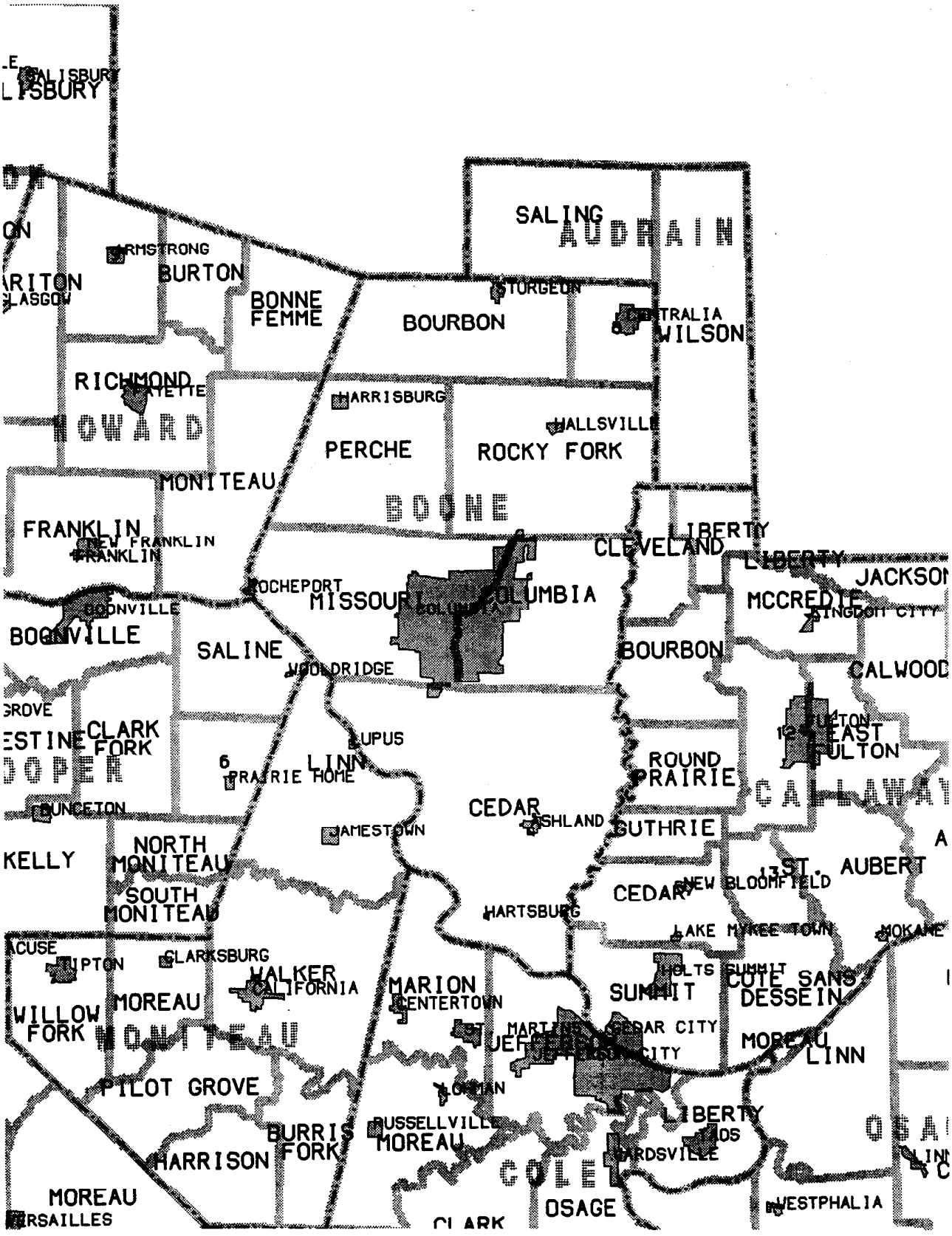
County Block Map Sample



Census Tract/Block Numbering Area Outline Map Sample



County Subdivision Map Sample



APPENDIX H.
Record Layout of Machine-Readable Data Dictionary

CONTENTS

Geographic Description ---- H–1
Table (Matrix) Description ---- H–2

This appendix provides the record layout for the machine-readable data dictionary file that accompanies each data tape. This data dictionary was developed as a "generic" dictionary that, with some programming, could be converted for use with specific software packages.

GEOGRAPHIC DESCRIPTION

Geographic Record 1—Field Mnemonic, Size, and Type

Position	*Description*
1-2	Identifier "G1" (Geographic Record 1)
3	Blank
4-11	Field mnemonic (left justified)
12	Blank
13-14	Field size (right justified)
15	Blank
16-18	Data type (left justified) Note: Legal entries are A, N, and A/N
19	Blank
20-24	Begin position (right justified) (Begin position in relation to the entire record)
25	Blank
26-30	Relative begin position (right justified) (Begin position in relation to the record segment)

Geographic Record 1—Con.

31	Blank
32	Number of implied decimals
33-80	Blank

Geographic Record 2—Field Description

Position	*Description*
1-2	Identifier "G2" (Geographic Record 2)
3	Blank
4-8	Begin position (right justified) (repeat from 20-24 above)
9	Blank
10-80	Field Description (left justified)

Geographic Record 3—Code Identification

Position	*Description*
1-2	Identifier "G3" (Geographic Record 3)
3	Blank
4-8	Begin position (right justified) (repeat from 20-24 in G1)
9	Blank
10-17	Codes (right justified)
18	Blank
19-80	Code identification (left justified)

Geographic Description Examples[1]

Examples of the geographic records are shown below. In example 1, there are no G3 records. G3 records will appear only for fields which have code listings in the technical documentation.

Example 1

```
G1 FILEID    8 A/N     1     1 0
G2     1 File Identification
```

Example 2

```
G1 PSADC     2 A/N   289   289 0
G2   289 Political/Statistical Area Description Code
G3   289       01 State or State equivalent - no status is appended to the name
G3   289       01 of the entity in census publications and related data products
G3   289       04 Borough - county equivalent in Alaska; "Borough" is appended t
G3   289       04 o the name of the entity in census publications and related da
G3   289       04 ta products
G3   289       05 Census area - county equivalent in Alaska: "Census Area" is ap
G3   289       05 pended to the name of the entity in census publications and re
G3   289       05 lated data products
```

[1]Examples are for illustrative purposes and are not specific to this STF.

TABLE (MATRIX) DESCRIPTION

Table Record 1—Table Number and Characteristics

Position	*Description*
1-2	Identifier "T1" (Table Record 1)
3	Blank
4-9	Table (matrix) number (left justified)
10	Blank
11-17	Begin position (right justified)[2] (Begin position in relation to the entire record)
18	Blank
19-25	Relative begin position (right justified)[2] (Begin position in relation to the record segment)
26	Blank
27-28	Cell size for this table (matrix) (right justified)
29	Blank
30	Number of implied decimals for cells in this table (matrix)
31	Blank
32-38	Number of cells in this table (matrix) (right justified)[2]
39	Blank
40-42	Number of variables (right justified)
43-80	Blank

Table Record 2—Table Title

Position	*Description*
1-2	Identifier "T2" (Table Record 2)
3	Blank
4-9	Table (matrix) number (left justified)
10	Blank
11-80	Table (matrix) title (left justified)

Table Record 3—Universe Description

Position	*Description*
1-2	Identifier "T3" (Table Record 3)
3	Blank

Table Record 3—Con.

4-9	Table (matrix) number (left justified)
10	Blank
11-80	Universe Description (left justified)

Table Record 4-N—Table Variable Descriptions

Position	*Description*
1-2	Identifier "Tn" n= sequence number of variable in the table being described.
3	Blank
4-9	Table (matrix) number (left justified)
10	Blank
11-76	Variable name (left justified)
77	Blank
78-80	Number of categories for this variable (right justified) Note: Subsequent "T" records with the same "n" will have the variable categories described in positions 11-80.

Filler Record

Position	*Description*
1-2	Identifier "F1" (Filler Record)
3	Blank
4-7	"FILL"
8-10	Blank
11-17	Begin Position (right justified) (Begin position in relation to the entire record)[2]
18	Blank
19-25	Relative Begin Position (right justified) (Begin position in relation to the record segment)[2]
26	Blank
27-30	Total number of "FILL" blanks
31-80	Blank

Matrix Example[1]

See example 3 below.

Example 3. Matrix Example

Sex (2) by Marital Status(5) [10]

```
T1 P14       4423     4423  9 0  10   2
T2 P14    SEX BY MARITAL STATUS
T3 P14    Persons 15 years and over
T4 P14    SEX                                                    2
T4 P14    Male
T4 P14    Female
T5 P14    MARITAL STATUS                                         5
T5 P14    Never married
T5 P14    Now married, except separated
T5 P14    Separated
T5 P14    Widowed
T5 P14    Divorced
```

[1]Examples are for illustrative purposes and are not specific to this STF.

[2]These positions have been increased to accommodate all record sizes. Previous products had less characters; future products (STF 3 PR, STF 3 VI, STF 4, etc.) will have the above structure.