

# 1990 Census of Population and Housing Summary File 420 Place of Work, 20 Destinations File: Puerto Rico Technical Documentation

D1-D90-S420-14-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 and Housing

**Summary**  
**Tape File 420**  
*Place of Work*  
*20 Destinations File*  
*(Puerto Rico)*

**TECHNICAL**  
**DOCUMENTATION**

Issued July 1993



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**Ronald H. Brown, Secretary**  
**Economics and Statistics Administration**  
**BUREAU OF THE CENSUS**  
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The files should be cited as follows:

Census of Population and Housing, 1990: Summary Tape File 420, Place of Work 20 Destinations (Puerto Rico) [machine-readable data files] / prepared by the Bureau of the Census. —Washington: The Bureau [producer and distributor], 1993.

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For additional information concerning the files, 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 this technical documentation provided with Summary Tape File 420 (Puerto Rico) for a further explanation on the limitations of the data.

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## CITATION

*Census of Population and Housing, 1990: Summary Tape File 420, Place of Work 20 Destinations File (Puerto Rico)* [machine-readable data files] / prepared by the Bureau of the Census. —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

Summary Tape File 420 (STF 420) for Puerto Rico contains sample data weighted to represent the total population of workers 16 years and over as well as 100-percent counts of all persons and housing units. It includes three population tables and one housing table. For total number of workers 16 years and over, data are provided for 20 places of work and for those working elsewhere.

In addition to the four tables, this tape will include a machine-readable list of the total number of workers living in each municipio and, for that municipio, the number of persons working in the 20 destinations listed as well as a "worked elsewhere" category for the remainder of places worked.

## GEOGRAPHIC COVERAGE

This abstract lists only the most frequently accessed geographic levels. The Summary Level Sequence Chart chapter on page 6-1 outlines the hierarchy and inventory summaries in their entirety.

STF 420 provides data for Puerto Rico and its subareas in hierarchical sequence down to the census tract/block numbering area (BNA) level. Summary levels for place of residence of workers provide data for metropolitan statistical areas (MSA's), primary metropolitan statistical areas (PMSA's), counties<sup>1</sup>, places with 10,000 or more persons, and census tracts/block numbering areas.

A list of 20 place of work destinations is defined for each residence municipio. The list also applies to the sub-municipio geographic residences (places, census tracts/BNA's) and contains a variety of geographic entities as destinations. A destination may be a municipio, place, balance of municipio, metropolitan area (MA), or balance of a MA. The number of place of work destinations shown for MSA and PMSA summary levels is limited to the number of destinations in common among the municipios comprising the area, and may be less than 20.

The hierarchy of this Puerto Rico file is:

Metropolitan Statistical Area/Consolidated  
Metropolitan Statistical Area (or MSA/CMSA part)  
County<sup>1</sup>  
Place with 10,000 or more persons (or place  
part)  
Census tract/block numbering area

Inventory (complete) summaries are available for the following:

County<sup>1</sup>  
MSA/PMSA  
County subdivision<sup>2</sup>  
Subbarrio<sup>3</sup>

## RELATED PRINTED REPORTS

1990 CPH-L-144, *Twenty Place of Work Destinations for Puerto Rico*. This listing provides the total number of workers living in each municipio in Puerto Rico and, for that municipio, the number of persons working in the 20 places listed as well as a "worked elsewhere" category

<sup>1</sup>Municipio in Puerto Rico

<sup>2</sup>Barrios-pueblo or barrios in Puerto Rico

<sup>3</sup>In Puerto Rico, some subdivisions (barrios-pueblo and barrios) are divided into sub-minor civil divisions (subbarrios).

for the remainder of places worked. This publication will be available after the Puerto Rico file is released. For pricing information, contact Customer Services, Data User Services Division, Bureau of the Census, Washington, DC 20233. Phone: 301-763-4100. FAX: 301-763-4794.

Listed below are the 1990 census printed reports for Puerto Rico containing sample data. These reports will be available from Superintendent 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 the nonmetropolitan balance of Puerto Rico. Statistics will be presented in a geographic hierarchy of municipio—place of 10,000 or more inhabitants—census tract/block numbering area (BNA). Scheduled for release in 1993.

1990 CPH-5-53, *Summary Social, 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.

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 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 in the summer of 1993.

## RELATED MACHINE-READABLE DATA FILES

*Census of Population and Housing, 1990: Summary Tape File 4 (Puerto Rico)*. It contains sample data for population and housing. In addition, the file contains 100-percent counts and unweighted sample counts for total persons and total housing units. STF 4 (Puerto Rico) has two files showing different geographic coverage—4A and 4B. For more information, refer to the STF 4 (Puerto Rico) technical documentation. For ordering information, contact Customer Services (see above).

## TECHNICAL DESCRIPTION

The STF 420 record for Puerto Rico has 516 characters in one segment. The first 300 characters of the segment contain geographic information.

## FILE AVAILABILITY

STF 420 for Puerto Rico is available as a single file. 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. A machine-readable data dictionary and the Place of Work Supplement are included on the tape without charge. Options include 6250 bpi, ASCII or EBCDIC, labeled or unlabeled. The files also are available on IBM 3480 compatible tape cartridges for the same price. A copy of the technical documentation is included with each order. When ordered separately, the cost is \$10. Please use the order form at the end of this chapter when placing an order.

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# HOW TO USE THIS FILE

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## 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, also are issued by the Census Bureau. We suggest filing these following appendix I.

### 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). Some of the field and reference names in the identification section are not applicable to the Puerto Rico data; these usually are filled with 9's or 0's, as appropriate.

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 procedures. A facsimile of the 1990 census questionnaire for Puerto Rico is in appendix E.

Appendix F furnishes detailed information on the 1990 census data products 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.

Appendix I contains the code list used in processing the data.

### 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. Phone: 301-763-4100. FAX: 301-763-4794. 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 municipio, 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. The 1990 STF 420 file for Puerto Rico has a Data Set Name (DSN) of SP420XPR.Fnnxxxx where "nn" is a two-digit number with leading zeros identifying the tape volume sequence. The "X", "F", and "x" in the DSN remain constant.

Also included on the tape are the Computer Referenceable Data Dictionary and the Place of Work Supplement. This supplement lists all twenty place of work destinations for each municipio in Puerto Rico. The DSN's are SP42CRDD.Fnnxxxx and SP420POW.Fnnxxxx, respectively. The record layout for the Place of Work Supplement follows:

Character	Description
1-2	State
3-5	Municipio
6-71	Area name
72-73	Place of work
74-83	Number of persons

**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. (See the Specific File Information section below.) UHL3 and UHL4 contain information from the identification portion of the first record on the tape. UHL5 and UHL6 contain a statement regarding the data limitations.

**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.

### Specific File Information

Specific file information for Puerto Rico, 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 Segmentation

STF 420 (Puerto Rico) has one segment of 516 characters. The first 300 characters of the segment contain geographic identification information followed by three population tables and one housing table. The machine-readable data dictionary, which accompanies the STF 420 file for Puerto Rico, provides complete information on these tables.

### 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. Remember that, for purposes of data presentation, the Census Bureau treats Puerto Rico as the statistical equivalent of a State and municipios as the statistical equivalent of counties. Barrios-pueblo and barrios are the statistical equivalent of county subdivisions. Some subdivisions (barrios-pueblo or barrios) are divided into sub-minor civil divisions called subbarrios.

The Summary Level Sequence Chart chapter for the STF 420 file for Puerto Rico 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 areas simply define the hierarchy.

For example, in summary level 141, the hierarchy listed is State—Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area/Remainder—Primary Metropolitan Statistical Area/Remainder—County—Census Tract/Block Numbering Area (BNA). The record actually contains data for a census tract/BNA within a given county, metropolitan area, and State.

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. When retrieving data from STF 420 file, it is necessary to check

the summary level (beginning in position 11 of the data dictionary).

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 identification section of the data dictionary beginning in position 14.

For STF 420 the only geographic component code used is "00." This means that data are available for the total area of each summary level listed.

### Record Identification

Each record on a summary tape file is uniquely identified by a combination of the geographic code (for example, State, Metropolitan Statistical Area (MSA)/Consolidated Metropolitan Statistical Area (CMSA)) and summary level code. For example if you have the Puerto Rico STF 420 file and want to look at the summary record for the Arecibo MSA, two fields must be checked: the summary level code (in position 11 of the geographic identification section) for MSA records (320) and the MSA code (in position 106 of the geographic identification section) for the Arecibo MSA (0470). If both fields are not checked, multiple records will be found.

### Special Area Codes

Special area codes appear in the geographic area codes portion of the data dictionary (positions 142-171) on all STF's. The codes represented may vary across STF's. In STF 420 for Puerto Rico, 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 codes. Special area code (9) is used in all summary levels on the STF 420 file. The nine codes for special area code (9) are described below.

Special area code (8)—Census Bureau subbarrio codes

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

Special area code (10) is used for STF 420 and appears in summary level 141 (census tract/Block Numbering Area) records. This code indicates whether the census tract/BNA is split.

Special area code (10) Split tract

- 1 Census tract/BNA is split between places [10,000 or more persons] or is inside and outside a place [10,000 or more persons]
- 2 Census tract/BNA is not split by place(s) [10,000 or more persons]

### Standard Codes

In the identification section of all STF's, 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 codes 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. STF 420 (Puerto Rico) File Identification by Summary Level<sup>1</sup>

Field name	Summary level			Summary level			Summary level		
	060	067	120	130	141	320	321	330	331
<b>Record Codes</b>									
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	*	*	*	*	*	*	*	*	*
-----									
<b>Geographic Area Codes</b>									
Alaska Native Regional									
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	*	*	*	*	*	*	*	*	*

<sup>1</sup>See the Summary Level Sequence Chart chapter for identification of the summary level record numbers.

Chart 1. STF 420 (Puerto Rico) File Identification by Summary Level<sup>1</sup>-Con.

Field name	Summary level			Summary level			Summary level		
	060	067	120	130	141	320	321	330	331
<b>Geographic Area Codes-Con.</b>									
MSA/CMSA Size Code	*	*	*	*	*	*	*	*	*
Place (Census)			*	*					
Place (FIPS)			*	*					
Place Class Code			*	*					
-----									
Place Description Code			*	*					
Place Size Code			*	*					
Primary Metropolitan Statistical Area	*	*	*	*	*		*		*
Region	*	*	*	*	*	*	*	*	*
-----									
State (Census) <sup>2</sup>	*	*	*	*	*	*	*	*	*
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)					*				
-----									
<b>Area Characteristics</b>									
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	*	*	*	*	*	*	*	*	*

<sup>1</sup>See the Summary Level Sequence Chart chapter for identification of the summary level record numbers.  
<sup>2</sup>Puerto Rico.

# SUBJECT LOCATOR

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Introduction .....	3-1

## INTRODUCTION

This Index is designed to identify quickly the Puerto Rico STF 420 tables. Each table variable is listed alphabetically. The type of entry tabulated (universe) is shown in italics, along with the relevant table numbers.

## INDEX

<b>100-Percent Count of Housing Units</b>	
<i>Housing units</i> .....	H1
<b>100-Percent Count of Persons</b>	
<i>Persons</i> .....	P1
<b>Place of Work</b>	
<i>Workers 16 years and over</i> .....	P3
<b>Workers</b>	
<i>Workers 16 years and over</i> .....	P2

# LIST OF TABLES (MATRICES)

Table (matrix)	Title	Total number of data cells
P1.	100-PERCENT COUNT OF PERSONS(1) ..... <i>Universe: Persons</i>	1
P2.	WORKERS(1)..... <i>Universe: Workers 16 years and over</i>	1
P3.	PLACE OF WORK(21) ..... <i>Universe: Workers 16 years and over</i>	21
H1.	100-PERCENT COUNT OF HOUSING UNITS(1)..... <i>Universe: Housing units</i>	1

# TABLE MATRIX OUTLINES

Table (matrix)	Title	Total number of data cells
P1.	100-PERCENT COUNT OF PERSONS(1) ..... <i>Universe: Persons</i> Total	1
P2.	WORKERS(1)..... <i>Universe: Workers 16 years and over</i> Total	1
P3.	PLACE OF WORK(21) ..... <i>Universe: Workers 16 years and over</i> Work place 1 Work place 2 Work place 3 Work place 4 Work place 5 Work place 6 Work place 7 Work place 8 Work place 9 Work place 10 Work place 11 Work place 12 Work place 13 Work place 14 Work place 15 Work place 16 Work place 17 Work place 18 Work place 19 Work place 20 Worked elsewhere	21
H1.	100-PERCENT COUNT OF HOUSING UNITS(1)..... <i>Universe: Housing units</i> Total	1

# SUMMARY LEVEL SEQUENCE CHART

Summary level area	Summary level code	Geographic component code
State—Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area/Remainder	320	00
Metropolitan Statistical Area/Remainder [no CMSAs]—State—County <sup>1</sup>	330	00
State—Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area/Remainder—Primary Metropolitan Statistical Area/Remainder—County—Place [10,000 or more persons]/Remainder	120	00
State—Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area/Remainder—Primary Metropolitan Statistical Area/Remainder—County—Place [10,000 or more persons]/Remainder—Census Tract/Block Numbering Area	130	00
State—Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area/Remainder—Primary Metropolitan Statistical Area/Remainder—County—Census Tract/Block Numbering Area	141	00
State—Consolidated Metropolitan Statistical Area—Primary Metropolitan Statistical Area	321	00
Consolidated Metropolitan Statistical Area—Primary Metropolitan Statistical Area—State—County	331	00
State—Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area/Remainder—Primary Metropolitan Statistical Area/Remainder—County—Place [10,000 or more persons]/Remainder	120	00
State—Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area/Remainder—Primary Metropolitan Statistical Area/Remainder—County—Place [10,000 or more persons]/Remainder—Census Tract/Block Numbering Area	130	00
State—Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area/Remainder—Primary Metropolitan Statistical Area/Remainder—County—Census Tract/Block Numbering Area	141	00
State—County—County Subdivision <sup>2</sup>	060	00
State [Puerto Rico only]—County—County Subdivision—Subbarrio <sup>3</sup>	067	00

<sup>1</sup>Municipio in Puerto Rico

<sup>2</sup>Barrio-pueblo or barrio in Puerto Rico

<sup>3</sup>In Puerto Rico, some subdivisions (barrios-pueblo and barrios) are divided into sub-minor civil divisions (subbarrios).

## USER NOTES

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

**CENSUS OF POPULATION AND HOUSING, 1990:  
SUMMARY TAPE FILE 420  
PLACE OF WORK 20 DESTINATIONS (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.)

May 1993



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

**CENSUS OF POPULATION AND HOUSING, 1990:  
SUMMARY TAPE FILE 420  
PLACE OF WORK 20 DESTINATIONS (PUERTO RICO)**

**USER NOTE 2**

**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

are shown only for general reference. They are displayed accurately on the Area and Municipio Outline Maps.

July 1993



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Name:

Address:

City and State:

ZIP Code:

# DATA DICTIONARY

## CONTENTS

Identification Section .....	1
Table (Matrix) Section .....	14

## IDENTIFICATION SECTION

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

### Record Codes

File Identification <sup>1</sup> .....	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
DE Delaware	MA Massachusetts	NV Nevada	VI Virgin Islands of the United States
FL Florida	MD Maryland	NY New York	VT Vermont
FM Federated States of Micronesia	ME Maine	OH Ohio	WA Washington
GA Georgia	MH Marshall Islands	OK Oklahoma	WI Wisconsin
	MI Michigan	OR Oregon	WV West Virginia
	MN Minnesota	PA Pennsylvania	WY Wyoming
	MO Missouri	PR Puerto Rico	

Summary Level <sup>2</sup> .....	SUMLEV	3	11	N
Geographic Component <sup>3</sup> .....	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 <sup>4</sup> ..... CHARITER 3 16 N

000 Not a characteristic iteration
------------------------------------

Logical Record Number <sup>5</sup> ..... LOGRECNU 6 19 N

Logical Record Part Number <sup>6</sup> ..... LOGRECPN 4 25 N

Total Number of Parts in Record <sup>7</sup> ..... PARTREC 4 29 N

**Geographic Area Codes**

Alaska Native Regional Corporation <sup>8</sup> ..... 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) <sup>9</sup> ..... AIANACE 4 35 A/N

American Indian/Alaska Native Area (FIPS) <sup>10</sup> ..... 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																								
<div style="border: 1px solid black; padding: 5px;">                     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                 </div>																												
American Indian Reservation Trust Land Indicator Code.....	ARTLI	1	46	A/N																								
<div style="border: 1px solid black; padding: 5px;">                     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                 </div>																												
Block <sup>a</sup> .....	BLCK	4	47	A/N																								
Block Group <sup>a</sup> .....	BLCKGR	1	51	A/N																								
Census Tract/Block Numbering Area <sup>a</sup> .....	TRACTBNA	6	52	A/N																								
Congressional District (101st Congress) <sup>a</sup> .....	CONGDIS	2	58	A/N																								
<div style="border: 1px solid black; padding: 5px;">                     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                 </div>																												
Consolidated City (Census) <sup>a</sup> .....	CONCITCE	1	60	A/N																								
<div style="border: 1px solid black; padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">B Butte-Silver Bow, Montana</td> <td style="width: 33%;">I Indianapolis, Indiana</td> <td style="width: 33%;">M Milford, Connecticut</td> </tr> <tr> <td>C Columbus, Georgia</td> <td>J Jacksonville, Florida</td> <td>N Nashville-Davidson, Tennessee</td> </tr> </table> </div>					B Butte-Silver Bow, Montana	I Indianapolis, Indiana	M Milford, Connecticut	C Columbus, Georgia	J Jacksonville, Florida	N Nashville-Davidson, Tennessee																		
B Butte-Silver Bow, Montana	I Indianapolis, Indiana	M Milford, Connecticut																										
C Columbus, Georgia	J Jacksonville, Florida	N Nashville-Davidson, Tennessee																										
Consolidated City (FIPS) <sup>8,10</sup> .....	CONCITFP	5	61	A/N																								
Consolidated City Class Code <sup>10</sup> .....	CONCITCC	2	66	A/N																								
<div style="border: 1px solid black; padding: 5px;">                     C3 Consolidated city                 </div>																												
Consolidated City Population Size Code.....	CONCITSC	2	68	A/N																								
<div style="border: 1px solid black; padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">00 Not in universe</td> <td style="width: 25%;">06 250-299</td> <td style="width: 25%;">12 2,500-4,999</td> <td style="width: 25%;">18 100,000-249,999</td> </tr> <tr> <td>01 0</td> <td>07 300-499</td> <td>13 5,000-9,999</td> <td>19 250,000-499,999</td> </tr> <tr> <td>02 1-24</td> <td>08 500-999</td> <td>14 10,000-19,999</td> <td>20 500,000-999,999</td> </tr> <tr> <td>03 25-99</td> <td>09 1,000-1,499</td> <td>15 20,000-24,999</td> <td>21 1,000,000-2,499,999</td> </tr> <tr> <td>04 100-199</td> <td>10 1,500-1,999</td> <td>16 25,000-49,999</td> <td>22 2,500,000-4,999,999</td> </tr> <tr> <td>05 200-249</td> <td>11 2,000-2,499</td> <td>17 50,000-99,999</td> <td>23 5,000,000 or more</td> </tr> </table> </div>					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
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																									
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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 <sup>a</sup> .....	CMSA	2	70	A/N																								
County <sup>a</sup> .....	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) <sup>9</sup> .....	COUSUBCE	3	77	A/N
County Subdivision (FIPS) <sup>10</sup> .....	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 <sup>8</sup> .....	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 <sup>8</sup> .....	EXTCITIN	1	90	A/N
--	----------	---	----	-----

1 Extended city	9 Not an extended city
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Internal Use Code <sup>11</sup> .....	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 <sup>9</sup> .....	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) <sup>9</sup> .....	PLACECE	4	112	A/N
Place (FIPS) <sup>10</sup> .....	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.



**IDENTIFICATION SECTION—Con.**

Field name	Data dictionary reference name	Field size	Starting position	Data type
State (FIPS) <sup>8</sup> .....	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
12 Florida	28 Mississippi	44 Rhode Island	68 Marshall Islands
13 Georgia	29 Missouri	45 South Carolina	69 Northern Mairiana Islands
15 Hawaii	30 Montana	46 South Dakota	70 Palau
16 Idaho	31 Nebraska	47 Tennessee	72 Puerto Rico
17 Illinois	32 Nevada	48 Texas	78 Virgin Islands of the United States
18 Indiana	33 New Hampshire	49 Utah	

Urban/Rural <sup>8</sup> .....	URBANRUR	1	135	A/N
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1 Urban	2 Rural
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Urbanized Area <sup>9</sup> .....	URBAREA	4	136	A/N
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Urbanized Area Population Size Code .....	UASC	2	140	A/N
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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

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) <sup>12</sup> .....	AREALAND	10	172	A/N
Area (water) <sup>13</sup> .....	AREAWAT	10	182	A/N
Area Name/PSAD Term/Part Indicator <sup>14</sup> .....	ANPSADPI	66	192	A/N

NOTE: See footnotes at the end of this section.

DATA DICTIONARY

**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
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- 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) <sup>15</sup> .....	HU100	9	260	A/N
Internal Point (latitude) <sup>16</sup> .....	INTPTLAT	9	269	A/N
Internal Point (longitude) <sup>17</sup> .....	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
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- 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.

DATA DICTIONARY

**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; "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
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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) <sup>18</sup> .....	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.	100-PERCENT COUNT OF PERSONS(1) [1] <i>Universe: Persons</i>			
	Total .....	301 .....	301 .....	1
P2.	WORKERS(1) [1] <i>Universe: Workers 16 years and over</i>			
	Total .....	310 .....	310 .....	1
P3.	PLACE OF WORK(21) [21] <i>Universe: Workers 16 years and over</i>			
	Work place 1 .....	319 .....	319 .....	1
	Work place 2 .....	328 .....	328 .....	2
	Work place 3 .....	337 .....	337 .....	3
	Work place 4 .....	346 .....	346 .....	4
	Work place 5 .....	355 .....	355 .....	5
	Work place 6 .....	364 .....	364 .....	6
	Work place 7 .....	373 .....	373 .....	7
	Work place 8 .....	382 .....	382 .....	8
	Work place 9 .....	391 .....	391 .....	9
	Work place 10 .....	400 .....	400 .....	10
	Work place 11 .....	409 .....	409 .....	11
	Work place 12 .....	418 .....	418 .....	12
	Work place 13 .....	427 .....	427 .....	13
	Work place 14 .....	436 .....	436 .....	14
	Work place 15 .....	445 .....	445 .....	15
	Work place 16 .....	454 .....	454 .....	16
	Work place 17 .....	463 .....	463 .....	17
	Work place 18 .....	472 .....	472 .....	18
	Work place 19 .....	481 .....	481 .....	19
	Work place 20 .....	490 .....	490 .....	20
	Worked elsewhere .....	499 .....	499 .....	21
H1.	100-PERCENT COUNT OF HOUSING UNITS(1) [1] <i>Universe: Housing units</i>			
	Total .....	508 .....	508 .....	1
	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.

#### **AREA CLASSIFICATIONS**

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

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### SUBJECT CHARACTERISTICS

#### 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.

## 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 psychiatric wards of hospitals, patients were classified in "mental (psychiatric) hospitals;" in hospital wards for persons with chronic diseases, patients were classified 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.)

## 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.")

#### **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.

# APPENDIX C. Accuracy of the Data

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## 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.

## ACCURACY OF THE DATA

## 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

$$\begin{aligned} SE(9,948) &= \sqrt{5(9,948) (1 - 9,948/21,220)} \\ &= 163 \text{ persons.} \end{aligned}$$

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  $0.85 \times 1.1 = 0.94$  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:

$$\begin{aligned} [9,948 - 1.645(179)] \text{ to } [9,948 + 1.645(179)] \\ \text{or} \\ 9,654 \text{ to } 10,242 \end{aligned}$$

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  $0.86 \times 1.1 = 0.95$  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 municipalities is:

$$62.6 - 55.9 = 6.7 \text{ percent.}$$

Using the results of the previous example:

$$\begin{aligned} SE(6.7) &= \sqrt{(SE(62.6))^2 + (SE(55.9))^2} = \sqrt{(0.94)^2 + (0.95)^2} \\ &= 1.34 \text{ percentage points} \end{aligned}$$

The 90 percent confidence interval for the difference is formed as before:

$$\begin{aligned} [6.70 - 1.645(1.34)] \text{ to } [6.70 + 1.645(1.34)] \\ \text{or} \\ 4.50 \text{ to } 8.90 \end{aligned}$$

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:

$$9948/9314 = 1.07$$

$$SE(1.07) = \left(\frac{9948}{9314}\right) \sqrt{\frac{179^2}{(9948)^2} + \frac{188^2}{(9314)^2}}$$

$$= .029$$

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

$$1.02 \text{ to } 1.12$$

### 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 <sup>1</sup>
	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

<sup>1</sup>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 canvass. 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 <sup>1</sup>	Size of publication area <sup>2</sup>													
	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

<sup>1</sup>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.

$$SE(\hat{Y}) = \sqrt{5 \frac{\hat{Y}}{N}}$$

N = Size of area

$\hat{Y}$  = Estimate of characteristic total

<sup>2</sup>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 <sup>1</sup>													
	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	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	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	0.1
15 or 85	3.6	2.9	2.5	2.1	1.6	1.1	0.9	0.6	0.5	0.4	0.3	0.2	0.1	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	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	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	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	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	0.2

<sup>1</sup>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 for Place of Work**

[Percent of persons in sample']

Area	Less than 15 percent	15 to 30 percent
Puerto Rico .....	1.3	1.1
Aguadilla .....	1.3	1.2
Arecibo .....	1.3	1.2
Caguas .....	1.3	1.2
Mayagüez.....	1.3	1.2
Ponce .....	1.3	1.2
San Juan .....	1.3	1.2

# 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.



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	

	PERSON 1		PERSON 2	
	Last name		Last name	
	First name	Middle initial	First name	Middle initial
<p>Please fill one column → for each person listed in Question 1a on page 1.</p> <p>Do not ask for Person 1.</p> <p><b>2. How is . . . related to (Person 1)?</b> Mark (X) ONE box for each person.</p> <p>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.</p>	<p>START in this column with the household member (or one of the members) in whose name the home is owned, being bought, or rented.</p> <p>If there is no such person, start in this column with any adult household member.</p>		<p>If a RELATIVE of Person 1:</p> <p>1 <input type="checkbox"/> Husband/wife</p> <p>2 <input type="checkbox"/> Natural-born or adopted son/daughter</p> <p>3 <input type="checkbox"/> Stepson/stepdaughter</p> <p>4 <input type="checkbox"/> Brother/sister</p> <p>5 <input type="checkbox"/> Father/mother</p> <p>6 <input type="checkbox"/> Grandchild</p> <p>7 <input type="checkbox"/> Other relative ↘</p> <p style="text-align: center;">-----</p> <p style="text-align: center;">[ ] [ ] [ ]</p> <p>-----</p> <p>If NOT RELATED to Person 1:</p> <p>8 <input type="checkbox"/> Roomer, boarder, or foster child</p> <p>9 <input type="checkbox"/> Housemate, roommate</p> <p>10 <input type="checkbox"/> Unmarried partner/Compañero</p> <p>11 <input type="checkbox"/> Other nonrelative</p>	
<p><b>3. Is . . . male or female?</b> Mark (X) ONE box for each person.</p>	<p>1 <input type="checkbox"/> Male</p> <p>2 <input type="checkbox"/> Female</p>		<p>1 <input type="checkbox"/> Male</p> <p>2 <input type="checkbox"/> Female</p>	
<p><b>4. Age and year of birth</b></p> <p>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.</p> <p>b. In what year was . . . born? Print the year of birth in the boxes.</p>	<p>a. Age [ ] [ ] [ ]</p> <p>b. Year of birth <b>1</b> [ ] [ ] [ ]</p>		<p>a. Age [ ] [ ] [ ]</p> <p>b. Year of birth <b>1</b> [ ] [ ] [ ]</p>	
<p><b>5. Is . . . now married, consensually married, widowed, divorced, separated, or has . . . never been married?</b> Mark (X) ONE box for each person.</p>	<p>1 <input type="checkbox"/> Now married</p> <p>2 <input type="checkbox"/> Consensually married</p> <p>3 <input type="checkbox"/> Widowed</p> <p>4 <input type="checkbox"/> Divorced</p> <p>5 <input type="checkbox"/> Separated</p> <p>6 <input type="checkbox"/> Never married</p>		<p>1 <input type="checkbox"/> Now married</p> <p>2 <input type="checkbox"/> Consensually married</p> <p>3 <input type="checkbox"/> Widowed</p> <p>4 <input type="checkbox"/> Divorced</p> <p>5 <input type="checkbox"/> Separated</p> <p>6 <input type="checkbox"/> Never married</p>	

**NOW PLEASE ASK QUESTIONS H1a--H30b FOR THIS HOUSEHOLD**

PERSON 7	
Last name	
First name	Middle initial
If a RELATIVE of Person 1:	
1 <input type="checkbox"/> Husband/wife	
2 <input type="checkbox"/> Natural-born or adopted son/daughter	
3 <input type="checkbox"/> Stepson/stepdaughter	
4 <input type="checkbox"/> Brother/sister	
5 <input type="checkbox"/> Father/mother	
6 <input type="checkbox"/> Grandchild	
7 <input type="checkbox"/> Other relative	
-----	
If NOT RELATED to Person 1:	
8 <input type="checkbox"/> Roomer, boarder, or foster child	
9 <input type="checkbox"/> Housemate, roommate	
10 <input type="checkbox"/> Unmarried partner/Compañero	
11 <input type="checkbox"/> Other nonrelative	
1 <input type="checkbox"/> Male	
2 <input type="checkbox"/> Female	
a. Age	
[ ][ ][ ]	
b. Year of birth	
1 [ ][ ][ ][ ]	
1 <input type="checkbox"/> Now married	
2 <input type="checkbox"/> Consensually married	
3 <input type="checkbox"/> Widowed	
4 <input type="checkbox"/> Divorced	
5 <input type="checkbox"/> Separated	
6 <input type="checkbox"/> Never married	

**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      6  6 rooms  
2  2 rooms      7  7 rooms  
3  3 rooms      8  8 rooms  
4  4 rooms      9  9 or more rooms  
5  5 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:

(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 <input type="checkbox"/> Less than \$10,000	14 <input type="checkbox"/> \$70,000 to \$74,999
2 <input type="checkbox"/> \$10,000 to \$14,999	15 <input type="checkbox"/> \$75,000 to \$79,999
3 <input type="checkbox"/> \$15,000 to \$19,999	16 <input type="checkbox"/> \$80,000 to \$89,999
4 <input type="checkbox"/> \$20,000 to \$24,999	17 <input type="checkbox"/> \$90,000 to \$99,999
5 <input type="checkbox"/> \$25,000 to \$29,999	18 <input type="checkbox"/> \$100,000 to \$124,999
6 <input type="checkbox"/> \$30,000 to \$34,999	19 <input type="checkbox"/> \$125,000 to \$149,999
7 <input type="checkbox"/> \$35,000 to \$39,999	20 <input type="checkbox"/> \$150,000 to \$174,999
8 <input type="checkbox"/> \$40,000 to \$44,999	21 <input type="checkbox"/> \$175,000 to \$199,999
9 <input type="checkbox"/> \$45,000 to \$49,999	22 <input type="checkbox"/> \$200,000 to \$249,999
10 <input type="checkbox"/> \$50,000 to \$54,999	23 <input type="checkbox"/> \$250,000 to \$299,999
11 <input type="checkbox"/> \$55,000 to \$59,999	24 <input type="checkbox"/> \$300,000 to \$399,999
12 <input type="checkbox"/> \$60,000 to \$64,999	25 <input type="checkbox"/> \$400,000 to \$499,999
13 <input type="checkbox"/> \$65,000 to \$69,999	26 <input type="checkbox"/> \$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 <input type="checkbox"/> Less than \$60	14 <input type="checkbox"/> \$350 to \$374
2 <input type="checkbox"/> \$60 to \$79	15 <input type="checkbox"/> \$375 to \$399
3 <input type="checkbox"/> \$80 to \$99	16 <input type="checkbox"/> \$400 to \$424
4 <input type="checkbox"/> \$100 to \$124	17 <input type="checkbox"/> \$425 to \$449
5 <input type="checkbox"/> \$125 to \$149	18 <input type="checkbox"/> \$450 to \$474
6 <input type="checkbox"/> \$150 to \$174	19 <input type="checkbox"/> \$475 to \$499
7 <input type="checkbox"/> \$175 to \$199	20 <input type="checkbox"/> \$500 to \$549
8 <input type="checkbox"/> \$200 to \$224	21 <input type="checkbox"/> \$550 to \$599
9 <input type="checkbox"/> \$225 to \$249	22 <input type="checkbox"/> \$600 to \$649
10 <input type="checkbox"/> \$250 to \$274	23 <input type="checkbox"/> \$650 to \$699
11 <input type="checkbox"/> \$275 to \$299	24 <input type="checkbox"/> \$700 to \$749
12 <input type="checkbox"/> \$300 to \$324	25 <input type="checkbox"/> \$750 to \$999
13 <input type="checkbox"/> \$325 to \$349	26 <input type="checkbox"/> \$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

<p><i>If respondent reported living in an apartment building, skip to H11.</i></p> <p><b>H10a.</b> Is this house on —</p> <p>1 <input type="checkbox"/> Less than 3 cuerdas?</p> <p>2 <input type="checkbox"/> 3 to 9 cuerdas?</p> <p>3 <input type="checkbox"/> 10 or more cuerdas?</p>	<p><b>H14.</b> Do you get water from —</p> <p>1 <input type="checkbox"/> A public system?</p> <p>2 <input type="checkbox"/> An individual well?</p> <p>3 <input type="checkbox"/> A cistern, tanks, or drums?</p> <p>4 <input type="checkbox"/> A spring or some other source, such as a river, irrigation canal, etc.?</p>	<p><b>H18.</b> What type of water heater do you have in this (house/apartment)?</p> <p>1 <input type="checkbox"/> Electric — tank type</p> <p>2 <input type="checkbox"/> Shower</p> <p>3 <input type="checkbox"/> Solar</p> <p>4 <input type="checkbox"/> Other</p> <p>5 <input type="checkbox"/> None</p>
<p><b>b.</b> In 1989, what were the actual sales of all agricultural products from this property?</p> <p>1 <input type="checkbox"/> None</p> <p>2 <input type="checkbox"/> \$1 to \$99</p> <p>3 <input type="checkbox"/> \$100 to \$499</p> <p>4 <input type="checkbox"/> \$500 to \$999</p> <p>5 <input type="checkbox"/> \$1,000 to \$2,499</p> <p>6 <input type="checkbox"/> \$2,500 or more</p>	<p><b>H15.</b> Is this building connected to a public sewer?</p> <p>1 <input type="checkbox"/> Yes, connected to public sewer</p> <p>2 <input type="checkbox"/> No, connected to septic tank or cesspool</p> <p>3 <input type="checkbox"/> No, use other means</p>	<p><b>H19.</b> Which fuel is used MOST for cooking?</p> <p>1 <input type="checkbox"/> Electricity</p> <p>2 <input type="checkbox"/> Gas</p> <p>3 <input type="checkbox"/> Other</p>
<p><b>H11.</b> When did (Person listed in column 1 on page 2) move into this (house/apartment)?</p> <p>1 <input type="checkbox"/> 1989 or 1990</p> <p>2 <input type="checkbox"/> 1985 to 1988</p> <p>3 <input type="checkbox"/> 1980 to 1984</p> <p>4 <input type="checkbox"/> 1970 to 1979</p> <p>5 <input type="checkbox"/> 1960 to 1969</p> <p>6 <input type="checkbox"/> 1959 or earlier</p>	<p><b>H16.</b> 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?</p> <p>1 <input type="checkbox"/> No bedroom</p> <p>2 <input type="checkbox"/> 1 bedroom</p> <p>3 <input type="checkbox"/> 2 bedrooms</p> <p>4 <input type="checkbox"/> 3 bedrooms</p> <p>5 <input type="checkbox"/> 4 bedrooms</p> <p>6 <input type="checkbox"/> 5 or more bedrooms</p>	<p><b>H20.</b> Do you have COMPLETE kitchen facilities; that is, a sink with piped water, a range or cookstove, and a refrigerator?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No</p>
<p><b>H12.</b> About when was this building first built?</p> <p>1 <input type="checkbox"/> 1989 or 1990</p> <p>2 <input type="checkbox"/> 1985 to 1988</p> <p>3 <input type="checkbox"/> 1980 to 1984</p> <p>4 <input type="checkbox"/> 1970 to 1979</p> <p>5 <input type="checkbox"/> 1960 to 1969</p> <p>6 <input type="checkbox"/> 1950 to 1959</p> <p>7 <input type="checkbox"/> 1940 to 1949</p> <p>8 <input type="checkbox"/> 1939 or earlier</p> <p>9 <input type="checkbox"/> Don't know</p>	<p><b>H17.</b> 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.</p> <p>1 <input type="checkbox"/> None</p> <p>2 <input type="checkbox"/> Only half bathrooms</p> <p>3 <input type="checkbox"/> 1 complete bathroom</p> <p>4 <input type="checkbox"/> 1 complete bathroom, plus half bath(s)</p> <p>5 <input type="checkbox"/> 2 or more complete bathrooms</p>	<p><b>H21.</b> Do you have air conditioning?</p> <p>1 <input type="checkbox"/> Yes, a central air conditioning system</p> <p>2 <input type="checkbox"/> Yes, 1 individual room unit</p> <p>3 <input type="checkbox"/> Yes, 2 or more individual room units</p> <p>4 <input type="checkbox"/> No</p>
<p><b>H13.</b> Which best describes the construction material of this building?</p> <p><i>Read categories and mark (X) only ONE box.</i></p> <p>Concrete walls (poured concrete, concrete blocks, stone, etc.)</p> <p>1 <input type="checkbox"/> With concrete slab roof</p> <p>2 <input type="checkbox"/> With wood frame roof</p> <p>Wood frame walls</p> <p>3 <input type="checkbox"/> With concrete foundation, poured concrete, etc.</p> <p>4 <input type="checkbox"/> With wood stilt foundation</p> <p>5 <input type="checkbox"/> Mixed concrete and wood walls</p> <p>6 <input type="checkbox"/> Other type of construction material</p>	<p><b>H22.</b> Do you have a telephone in this (house/apartment)?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No</p>	<p><b>H23.</b> How many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of this household?</p> <p>1 <input type="checkbox"/> None</p> <p>2 <input type="checkbox"/> 1</p> <p>3 <input type="checkbox"/> 2</p> <p>4 <input type="checkbox"/> 3</p> <p>5 <input type="checkbox"/> 4 or more</p>

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  
3  No — Skip to H28a

} Go to H27b

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 → \_\_\_\_\_

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)?

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

1  September 1980 or later  
2  May 1975 to August 1980  
3  Vietnam era (August 1964 — April 1975)

"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    5  1970 to 1974  
1  1985 or 1986    6  1965 to 1969  
2  1982 to 1984    7  1960 to 1964  
3  1980 or 1981    8  1950 to 1959  
4  1975 to 1979    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  
Grade 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 → \_\_\_\_\_

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 1d

b. How long did ... live in the United States during the last period of 6 or more months?

1  6 months to a year    4  5 years  
2  1 to 2 years    5  6 to 9 years  
3  3 to 4 years    6  10 or more years

c. When did ... come or return to Puerto Rico after that period in the U.S.?

1  1990    4  1907    7  1984  
2  1989    5  1986    8  1983  
3  1988    6  1985    9  1980 to 1982

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    5  5    9  9  
2  2    6  6    10  10  
3  3    7  7    11  11  
4  4    8  8    12  12 or more

6  World War II (September 1940 — July 1947)  
7  World War I (April 1917 — November 1918)  
8  Any other time

e. 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



## 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
Other Census Bureau Resources .....	F-6
Reference Materials .....	F-4
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. 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 American Indian and Alaska Native areas (AIANA's), States, counties, county subdivisions (MCD's/ CCD's), places (incorporated and census designated), 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 Planning 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

DATA PRODUCTS AND USER ASSISTANCE

## 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 Census Information Center Branch, 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

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**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

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**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

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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
<b>1990 CENSUS OF POPULATION AND HOUSING (1990 CPH)</b>				
<b>100-Percent Data</b>				
1990 CPH-1-53	<b>Summary Population and Housing Characteristics</b>	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	<b>Population and Housing Unit Counts</b>	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)
<b>100-Percent and Sample Data</b>				
1990 CPH-3	<b>Population and Housing Characteristics for Census Tracts and Block Numbering Areas</b>	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)
<b>Sample Data</b>				
1990 CPH-5-53	<b>Summary Social, Economic, and Housing Characteristics</b>	Puerto Rico	Statistics generally on sample population and housing subjects	Puerto Rico, its municipios, barrios-pueblos and barrios, subbarrios, and places
<b>1990 CENSUS OF POPULATION (1990 CP)</b>				
<b>100-Percent Data</b>				
1990 CP-1-53	<b>General Population Characteristics</b>	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
<b>Sample Data</b>				
1990 CP-2-53	<b>Social and Economic Characteristics</b>	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
<b>1990 CENSUS OF HOUSING (1990 CH) 100-Percent Data</b>				
1990 CH-1-53	<b>General Housing Characteristics</b>	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
<b>Sample Data</b>				
1990 CH-2-53	<b>Detailed Housing Characteristics</b>	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) <sup>1</sup>	Geographic areas	Description
STF 1 (100 percent)	A <sup>2</sup>	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
	B <sup>2</sup>	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
	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 <sup>2 3</sup>	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
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
	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.

<sup>1</sup>Similar STF's will be prepared for States, the District of Columbia, and the U.S. Virgin Islands.

<sup>2</sup>Also available on laser disc (CD-ROM). STF 1B CD-ROM presents an extract of STF 1B.

<sup>3</sup>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

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Terminology .....	G-1

There are three map series that relate to the geographic entities for which the Census Bureau provides statistics in the STF 420 (Puerto Rico) data tapes. Copies of these 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 municipio on one or more map sheets at various scales, depending on the municipio's areal size and the density of the block pattern. (Most municipios 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 municipio. Each municipio includes an index map sheet that shows the locations of the map sheets comprising the municipio set.

### Census Tract/Block Numbering Area Outline

**Maps**—These municipio-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 municipios, municipio subdivisions, and places. Map scales vary to minimize the number of sheets. The maps may include one or more insets for densely settled areas.

**County Subdivision Map**—This map of Puerto Rico depicts the boundaries and names of all municipios and statistically equivalent areas, municipio 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

<u>SYMBOL DESCRIPTION</u>	<u>SYMBOL</u>	<u>NAME STYLE</u>	<u>FIPS CODE</u>	<u>CENSUS CODE</u>
International	*****	CANADA		
American Indian Reservation	XXXXXXXX	CAMPO RSVN	10522	(0450)
Trust Land	XXXXXXXX		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	38970	(5340)
State <sup>1</sup>	///////	NEW YORK	(36)	
County <sup>1</sup>	□□□□□□□□	ERIE COUNTY	(029)	
Minor Civil Division <sup>2</sup>	●●●●●●●●	YORK TWP	83908	(070)
Census County Division	●●●●●●●●	KULA DIV	81999	(050)
Incorporated Place	○●●●●●●●	Rome City	63418	(3120)
Census Designated Place	○●●●●●●●	Zena	84187	(4100)
Corporate Corridor	○●●●●●●●	1860		
Census Tract or Block Numbering Area	██████████	5702.01		
Block Number (With Asterisk) <sup>3</sup>	380*			
Fishhook <sup>4</sup>	↔			
Cross-of-Vessels	↓ Tract ↓ Block	↓ 2130.99 ↓ 5012		

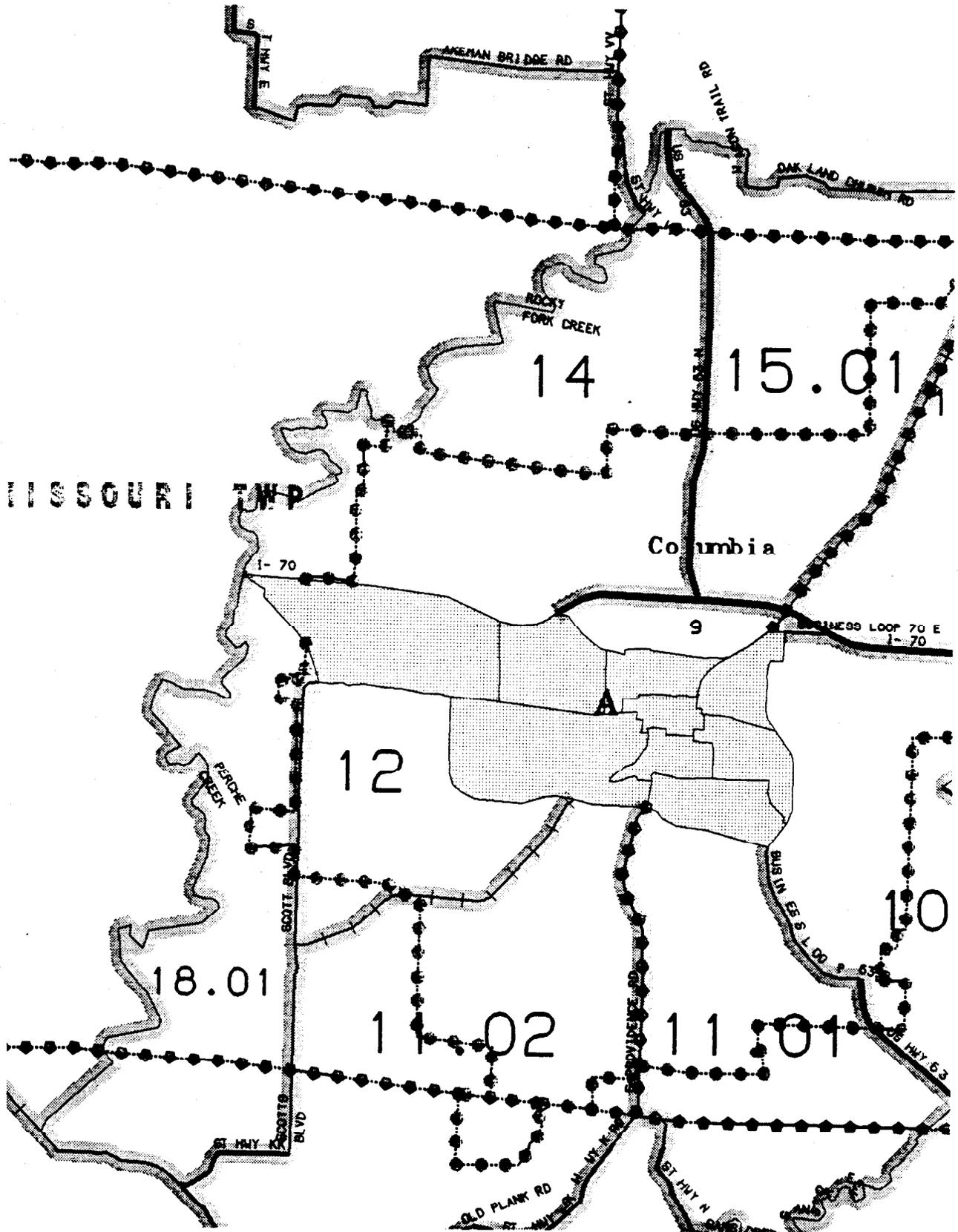
Note: An international boundary also depicts a state boundary and a county boundary; a state boundary also depicts a county boundary. The symbols for all other coincident boundaries are shown alternately, as shown in the example:  
 e.g. 1 ●●●●●●●●

<u>FEATURE</u>	<u>SYMBOL</u>	<u>NAME STYLE</u>
Interstate Highway and Limited Access Road <sup>5</sup>	=====	Interstate 835
Other Highway <sup>5</sup>	=====	Rte 101
City Street, Other Connecting Road, or Dirt Road <sup>5</sup>	=====	Marsh Ln
Jeep Trail, Walkway, or Stairway	-----	Lebelle Vch
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	

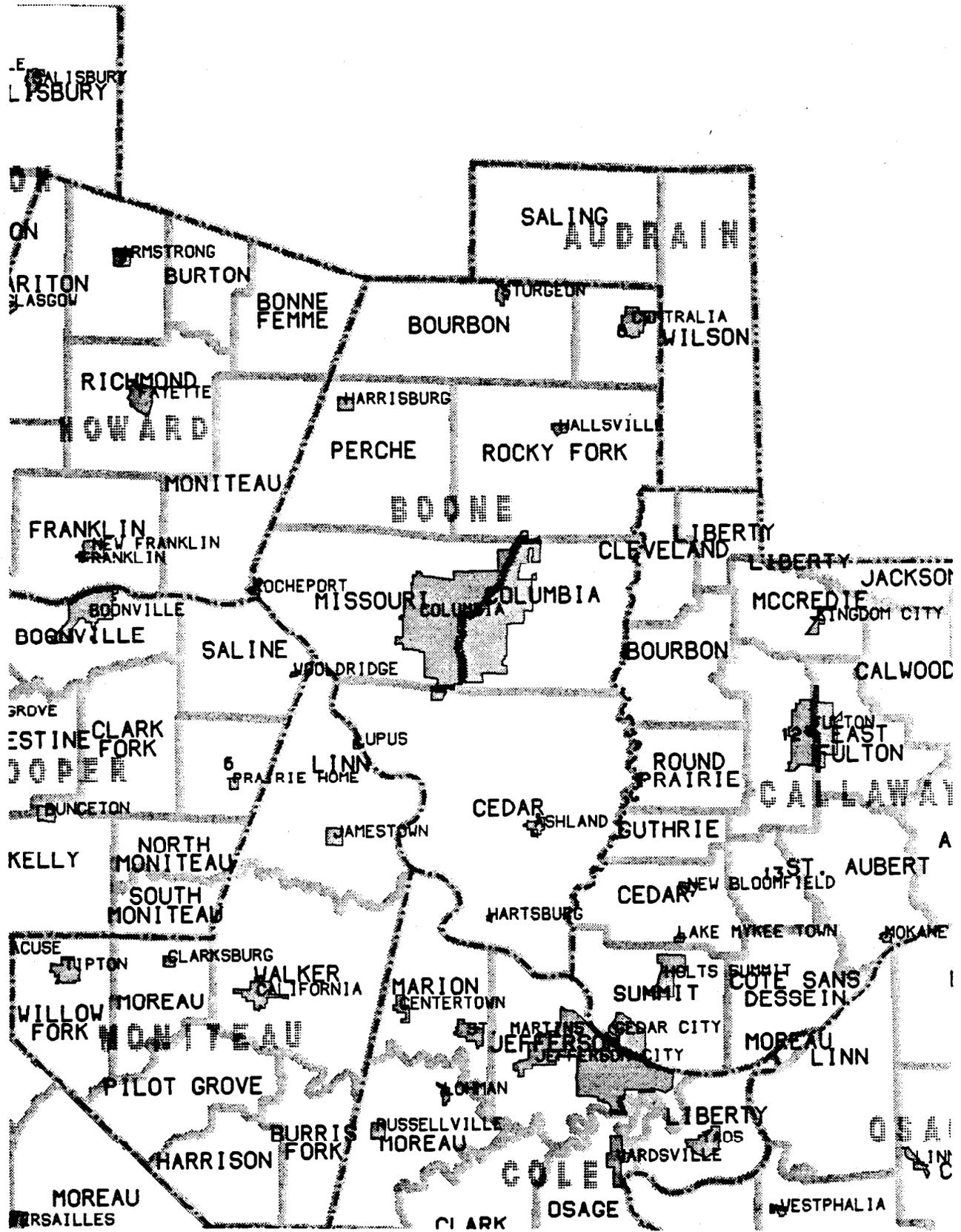
<sup>1</sup> State or County; or their equivalent area for statistical purposes.  
<sup>2</sup> A five-spoked asterisk following a minor civil division indicates that the minor civil division is coterminous with an incorporated place and has the same name.  
<sup>3</sup> An asterisk following a block number indicates that the block number is repeated elsewhere in the block or is shown partially on an adjacent map sheet.  
<sup>4</sup> 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.  
<sup>5</sup> A X 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.



# 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)

#### 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 to
G3 289 04 of 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
```

<sup>1</sup>Examples are for illustrative purposes and are not specific to this STF.

#### 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<sup>1</sup>

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.

## 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) <sup>2</sup> (Begin position in relation to the entire record)
18	Blank
19-25	Relative begin position (right justified) <sup>2</sup> (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) <sup>2</sup>
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

### Example 3

#### 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					

<sup>1</sup>Examples are for illustrative purposes and are not specific to this STF.

<sup>2</sup>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.

### 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) <sup>2</sup>
18	Blank
19-25	Relative Begin Position (right justified) (Begin position in relation to the record segment) <sup>2</sup>
26	Blank
27-30	Total number of "FILL" blanks
31-80	Blank

### Matrix Example<sup>1</sup>

See example 3 below.

# APPENDIX I. Code List

## STATE AND FOREIGN AREA CODES

This section contains the code list of U.S. States and territories, foreign countries, and other areas used to assign a three-digit code to the workplace reported by each person. The alphabetical list used in coding included abbreviations and alternate names, including some historical names for countries and names of States, provinces, counties, or other subdivisions of countries.

The following list does not include any of these alternate names, but does include continent and area names used as defaults if a specific country was not named but a broader region or work area was reported. The names for foreign countries shown on this list and in the publications reflect the most commonly used names in this country, not their official or legal names. Each entry shown on the following list has a unique code.

The U.S. States and territories were assigned their Federal Information Processing Standards (FIPS) code preceded by a zero. For foreign countries, codes were generally assigned by listing the countries or areas in alphabetical order (followed by default codes) within eight broad continent or regional areas: (1) Europe, (2) Asia, (3) North America, (4) Central America, (5) Caribbean, (6) South America, (7) Africa, and (8) Oceania. The entries for the USSR and the Baltic States are listed following the other entries for Europe for convenience in combining with either Europe or Asia. The entries for Germany also do not follow strict alphabetical order; codes 110-114 can be combined to tabulate an overall figure including Germany (not specified), East Germany, West Germany, and Berlin. The entries for the United Kingdom also do not follow strict alphabetical order; codes 138-145 can be combined to tabulate an overall figure including United Kingdom (not specified), England, Scotland, Wales, Northern Ireland, Guernsey, Jersey, and the Isle of Man. The codes for Asia also include a code for Korea (not specified) since it is often reported in that fashion.

<b>001-059</b>	<b>United States</b>	<b>001-059</b>	<b>United States—Con.</b>
001	Alabama	034	New Jersey
002-003	Alaska	035	New Mexico
004	Arizona	036	New York
005	Arkansas	037	North Carolina
006-007	California	038	North Dakota
008	Colorado	039	Ohio
009	Connecticut	040	Oklahoma
010	Delaware		
011	District of Columbia	041	Oregon
012	Florida	042-043	Pennsylvania
013-014	Georgia	044	Rhode Island
015	Hawaii	045	South Carolina
016	Idaho	046	South Dakota
017	Illinois	047	Tennessee
018	Indiana	048	Texas
019	Iowa	049	Utah
020	Kansas	050	Vermont
021	Kentucky	051-052	Virginia
022	Louisiana	053	Washington
023	Maine	054	West Virginia
024	Maryland	055	Wisconsin
025	Massachusetts	056-059	Wyoming
026	Michigan		
027	Minnesota	<b>060-099</b>	<b>U.S. Outlying Areas and Puerto Rico</b>
028	Mississippi		
029	Missouri	060-065	American Samoa
030	Montana	066	Guam
031	Nebraska	067-068	Johnston Atoll
032	Nevada	069-070	Northern Mariana Islands
033	New Hampshire	071	Midway Islands

**060-099 U.S. Outlying Areas and Puerto Rico—Con.**

072-075 Puerto Rico  
 076-077 Navassa Island  
 078 U.S. Virgin Islands  
 079-080 Wake Island  
 081-083 Baker Island  
 084-085 Howland Island  
 086-088 Jarvis Island  
 089-094 Kingman Reef  
 095 Palmyra Atoll  
 096-099 U.S. territory, not specified

**100-199 Europe**

100 Albania  
 101 Andorra  
 102 Austria  
 103 Belgium  
 104 Bulgaria  
 105 Czechoslovakia  
 106 Denmark  
 107 Faroe Islands  
 108 Finland  
 109 France  
 110 Germany, not specified  
 111 West Germany  
 112 West Berlin  
 113 East Berlin  
 114 East Germany  
 115 Gibraltar  
 116 Greece  
 117 Hungary  
 118 Iceland  
 119 Ireland  
 120 Italy  
 121 Jan Mayen  
 122 Liechtenstein  
 123 Luxembourg  
 124 Malta  
 125 Monaco  
 126 Netherlands  
 127 Norway  
 128 Poland  
 129 Portugal  
 130 Azores Islands  
 131 Madeira Islands  
 132 Romania  
 133 San Marino  
 134 Spain  
 135 Svalbard  
 136 Sweden  
 137 Switzerland  
 138 United Kingdom, not specified  
 139 England  
 140 Scotland  
 141 Wales  
 142 Northern Ireland

**100-199 Europe—Con.**

143 Guernsey  
 144 Jersey  
 145 Isle of Man  
 146 Vatican City  
 147 Yugoslavia  
 148 Europe, not specified  
 149 Central Europe, not specified  
 150 Eastern Europe, not specified  
 151 Lapland, not specified  
 152 Northern Europe, not specified  
 153 Southern Europe, not specified  
 154-179 Western Europe, not specified  
 180 Union of Soviet Socialist Republics (USSR)  
 181 Baltic States, not specified  
 182 Estonia  
 183 Latvia  
 184-199 Lithuania

**200-299 Asia**

200 Afghanistan  
 201 Bahrain  
 202 Bangladesh  
 203 Bhutan  
 204 Brunei  
 205 Burma  
 206 Cambodia  
 207 China  
 208 Cyprus  
 209 Hong Kong  
 210 India  
 211 Indonesia  
 212 Iran  
 213 Iraq  
 214 Israel  
 215 Japan  
 216 Jordan  
 217 Korea, not specified  
 218 South Korea  
 219 North Korea  
 220 Kuwait  
 221 Laos  
 222 Lebanon  
 223 Macau  
 224 Malaysia  
 225 Maldives  
 226 Mongolia  
 227 Nepal  
 228 Oman  
 229 Pakistan  
 230 Paracel Islands  
 231 Philippines  
 232 Qatar  
 233 Saudi Arabia  
 234 Singapore  
 235 Spratley Islands

<b>200-299</b>	<b>Asia—Con.</b>	<b>330-374</b>	<b>Caribbean—Con.</b>
236	Sri Lanka	343	Jamaica
237	Syria	344	Martinique
238	Taiwan	345	Montserrat
239	Thailand	346	Netherlands Antilles
240	Turkey	347	St. Barthelemy
241	United Arab Emirates	348	St. Kitts-Nevis
242	Vietnam	349	St. Lucia
243	Yemen, People's Democratic Republic	350	St. Vincent and the Grenadines
244	Yemen Arab Republic	351	Trinidad and Tobago
245	Asia, not specified	352	Turks and Caicos Islands
246	Asia Minor, not specified	353	Caribbean, not specified
247	East Asia, not specified	354	Antilles, not specified
248	Gaza Strip	355	British West Indies, not specified
249	Indochina, not specified	356	Latin America, not specified
250	Iraq-Saudi Arabia Neutral Zone	357	Leeward Islands, not specified
251	Mesopotamia, not specified	358	West Indies, not specified
252	Middle East, not specified	359-374	Windward Islands, not specified
253	Palestine, not specified		
254	Persian Gulf States, not specified	<b>375-399</b>	<b>South America</b>
255	Southeast Asia, not specified	375	Argentina
256-299	West Bank	376	Bolivia
		377	Brazil
<b>300-399</b>	<b>America</b>	378	Chile
<b>300-309</b>	<b>North America</b>	379	Colombia
300	Bermuda	380	Ecuador
301	Canada	381	Falkland Islands
302	Greenland	382	French Guiana
303	St. Pierre and Miquelon	383	Guyana
304-309	North America, not specified	384	Paraguay
		385	Peru
<b>310-329</b>	<b>Central America</b>	386	Suriname
310	Belize	387	Uruguay
311	Costa Rica	388	Venezuela
312	El Salvador	389-399	South America, not specified
313	Guatemala		
314	Honduras	<b>400-499</b>	<b>Africa</b>
315	Mexico	400	Algeria
316	Nicaragua	401	Angola
317	Panama	402	Bassas da India
318-329	Central America, not specified	403	Benin
		404	Botswana
<b>330-374</b>	<b>Caribbean</b>	405	British Indian Ocean Territory
330	Anguilla	406	Burkina Faso
331	Antigua and Barbuda	407	Burundi
332	Aruba	408	Cameroon
333	Bahamas	409	Cape Verde
334	Barbados	410	Central African Republic
335	British Virgin Islands	411	Chad
336	Cayman Islands	412	Comoros
337	Cuba	413	Congo
338	Dominica	414	Djibouti
339	Dominican Republic	415	Egypt
340	Grenada	416	Equatorial Guinea
341	Guadeloupe	417	Ethiopia
342	Haiti	418	Europa Island
		419	Gabon

**400-499 Africa—Con.**

420 Gambia  
 421 Ghana  
 422 Glorioso Islands  
 423 Guinea  
 424 Guinea-Bissau  
 425 Ivory Coast  
 426 Juan de Nova Island  
 427 Kenya  
 428 Lesotho  
 429 Liberia  
 430 Libya  
 431 Madagascar  
 432 Malawi  
 433 Mali  
 434 Mauritania  
 435 Mayotte  
 436 Morocco  
 437 Mozambique  
 438 Namibia  
 439 Niger  
 440 Nigeria  
 441 Reunion  
 442 Rwanda  
 443 Sao Tome and Principe  
 444 Senegal  
 445 Mauritius  
 446 Seychelles  
 447 Sierra Leone  
 448 Somalia  
 449 South Africa  
 450 St. Helena  
 451 Sudan  
 452 Swaziland  
 453 Tanzania  
 454 Togo  
 455 Tromelin Island  
 456 Tunisia  
 457 Uganda  
 458 Western Sahara  
 459 Zaire  
 460 Zambia  
 461 Zimbabwe  
 462 Africa, not specified  
 463 Central Africa, not specified  
 464 Eastern Africa, not specified  
 465 Equatorial Africa, not specified

**400-499 Africa—Con.**

466 French Equatorial Africa, not specified  
 467 French West Africa, not specified  
 468 North Africa, not specified  
 469 Western Africa, not specified  
 470-499 Southern Africa, not specified

**500-553 Oceania**

500 Ashmore and Cartier Islands  
 501 Australia  
 502 Christmas Island, Indian Ocean  
 503 Clipperton Island  
 504 Cocos Islands  
 505 Cook Islands  
 506 Coral Sea Islands  
 507 Fiji  
 508 French Polynesia  
 509 Kiribati  
 510 Marshall Islands  
 511 Micronesia  
 512 Nauru  
 513 New Caledonia  
 514 New Zealand  
 515 Niue  
 516 Norfolk Island  
 517 Palau  
 518 Papua New Guinea  
 519 Pitcairn Islands  
 520 Solomon Islands  
 521 Tokelau  
 522 Tonga  
 523 Tuvalu  
 524 Vanuatu  
 525 Wallis and Futuna Islands  
 526 Western Samoa  
 527 Oceania, not specified  
 528 Polynesia, not specified  
 529-549 Melanesia, not specified  
 550 Antarctica  
 551 Bouvet Island  
 552 French Southern and Antarctic Lands  
 553 Heard and McDonald Islands

**554-999 At Sea/Abroad, Not Specified**

554 At sea  
 555-999 Abroad, not specified



**CENSUS OF POPULATION AND HOUSING, 1990:  
SUMMARY TAPE FILE 420 (PUERTO RICO) DATA**

TECHNICAL NOTE 1

The following geographic names appear incorrectly in the summary tape files for Puerto Rico. Bold type identifies the correct entry.

In the records for **Aguirre (Rural) subbarrio, Salinas Municipio**, the name (beginning in position 192 in the identification section of the data dictionary) is shown incorrectly as Aguirre (rural) subbarrio.

In the records for **Alto del Cabro subbarrio, San Juan Municipio**, the name (beginning in position 192 in the identification section of the data dictionary) is shown incorrectly as Alto Del Cabro subbarrio.

In the records for **Baldorioty de Castro subbarrio, Ponce Municipio**, the name (beginning in position 192 in the identification section of the data dictionary) is shown incorrectly as Baldorioty De Castro subbarrio.

In the records for **Higüey subbarrio, Aguadilla Municipio**, the name (beginning in position 192 in the identification section of the data dictionary) is shown incorrectly as Higuey subbarrio.

In the records for **Indiera Friá barrio, Maricao Municipio**, the name (beginning in position 192 in the identification section of the data dictionary) is shown incorrectly as Indiera Fna barrio.

In the records for **Maizales barrio, Naguabo Municipio**, the name (beginning in position 192 in the identification section of the data dictionary) is shown incorrectly as Maízales barrio.

In the records for **Pozo del Hato subbarrio, San Juan Municipio**, the name (beginning in position 192 in the identification section of the data dictionary) is shown incorrectly as Pozo Del Hato subbarrio.

In the records for **Puerta de Tierra subbarrio, San Juan Municipio**, the name (beginning in position 192 in the identification section of the data dictionary) is shown incorrectly as Puerta De Tierra subbarrio.

In the records for **San Cristóbal subbarrio, San Juan Municipio**, the name (beginning in position 192 in the identification section of the data dictionary) is shown incorrectly as San Cristobal subbarrio.

July 1993

