

# 1990 Census of Population and Housing Public Use Microdata Samples (PUMS): Guam Technical Documentation

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1990 Census of  
Population and Housing

**Public Use  
Microdata  
Samples**  
*Guam*

**TECHNICAL  
DOCUMENTATION**

Issued May 1993



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The files should be cited as follows:

Census of Population and Housing, 1990: Public Use Microdata Samples Guam [machine-readable data files] / prepared by the Bureau of the Census. —Washington: The Bureau [producer and distributor], 1993.

The technical documentation should be cited as follows:

Census of Population and Housing, 1990: Public Use Microdata Sample Guam Technical Documentation / prepared by the Bureau of the Census. —Washington: The Bureau, 1993.

For additional information concerning purchasing 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 or file content, contact Data User Services Division, Microdata Access Branch, Bureau of the Census, Washington, DC 20233. Telephone: 301-763-2005.

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

**CITATION**

Census of Population and Housing, 1990: Public Use Microdata Samples-Guam [machine-readable data] prepared by the Bureau of the Census. -Washington: The Bureau [producer and distributor], 1993.

**TYPE OF FILE**

Microdata

**UNIVERSE DESCRIPTION**

All persons and housing units in Guam.

**SUBJECT MATTER DESCRIPTION**

The Public Use Microdata Sample (PUMS) file for Guam contains records representing 10% samples of the housing units in Guam and the persons in them. Selected group quarters persons also are included. The file is self-weighting. Each housing unit and each person contains a weight of 10, which when applied to the individual records expands the sample to the total population or total housing units. Each housing unit sample record contains essentially all the 1990 census data collected about each person in the household and the characteristics of the housing unit. Most population and housing items are listed below. Please see the Data Dictionary for a complete listing of variables. Microdata files enable users to prepare customized tabulations and cross-tabulations of virtually any item on the census questionnaire.

Items on the housing record include:

Air Conditioning	Allocation Flags for Housing Items
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Bedrooms	Property Value
Condominium Fee	Radio
Condominium Status	Real Estate Taxes and Yearly Insurance
Contract Rent	Rooms
Cost of Utilities	Sewage Disposal
Family Income in 1989	Source of Water
Family, Subfamily and Relationship Recodes	State (Residence)
Fire, Hazard, Flood Insurance	Telephone in Housing Unit
Fuels Used	Television
Gross Rent	Tenure
Household Income in 1989	Units in Structure
Household Type	Vacancy Status
Housing Unit Weight	Vehicles Available
Kitchen Facilities	Water, Heating, and Fuel
Mortgage Status and Selected Monthly Owner Costs	Year Householder Moved into Unit
Plumbing Facilities	Year Structure Built
Presence of Subfamilies in Household	

Items on the person record include:

Ability to Read and Write	Marital Status
Age	Migration Island/State/Country
Allocation Flags for Population Items	Military Status, Periods of Active Duty Military Service, Veteran Period of Service, Military Dependency
Ancestry	Mobility Status
Children Ever Born	Occupation
Citizenship	Person's Weight
Class of Worker	Personal Care Limitation
Disability Status	Place of Birth
Educational Attainment	Poverty Status in 1989
Ethnicity	Relationship
Fertility	
Hours Worked in 1989	
Income in 1989 by Type Industry	
Language Spoken at Home	

School Enrollment and Type of School	Vocational Training Weeks Worked in 1989
Time of Departure for Work	Work Limitation Status Work Status in 1989
Vehicle Occupancy	Year of Entry

## GEOGRAPHIC COVERAGE

The 1990 PUMS file for Guam covers the island of Guam and does not show any sub-island geography.

## RELATED PRINTED REPORTS

The Guam PUMS is self-weighting (e.g., the weight is the same for all records). Weight variables are provided on PUMS, most estimates derived from PUMS tabulations can be checked for reasonableness against other 1990 census printed reports, STFs, or microfiche produced from sample data. Users can take advantage of weighting procedures provided by the statistical packages or multiply their results by "10."

Listed below are the 1990 census products which may be used to verify estimates derived from PUMS files:

**Printed Report:** 1990 CPH-6-G 1990 Census of Population and Housing, *Social, Economic, and Housing Characteristics, 1992*. This report provides data for all the population and housing subjects included in the 1990 census of Guam. This report is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The stock number is 003-024-08087-7; price: \$18.

**Machine Readable Products:** *Census of Population and Housing, 1990: Summary Tape File 1* (Pacific Outlying Areas) and *Summary Tape File 3*. The STF files include most of the data provided in the printed report but contain greater subject detail and more geographic levels than the printed report.

The STF 1 contains basic population and housing characteristics in hierarchical sequence down to the block level. Population items include data on age, sex, marital status, ethnicity (race), and household relationship. Population items are cross-tabulated by age and sex. Housing items include number of units in structure, number of rooms in housing unit, tenure (owned or rented), value of home or monthly rent paid, and vacancy characteristics. Housing data are cross-tabulated by tenure. Selected

aggregates and medians also are provided. Data are presented in 29 population tables (matrices) and 45 housing tables (matrices). The STF 3 contains data on detailed subjects in hierarchical sequence down to the block group level. Both STF 1 and 3 files are available on computer tape or on high density flexible diskettes in ASCII SDF format from Customer Services, Data User Services Division, Bureau of the Census, Washington, D.C. 20233.

## RELATED REFERENCE MATERIALS

1990 CPH-1-7PI, *Introduction to 1990 Census of Products for the Pacific Outlying Areas*. A report that described 1990 census products for the Pacific Outlying Areas and the 1990 census geography for these areas. This publication is available without charge. To order, contact Customer Services, Data User Services Division, Bureau of the Census, Washington, D.C. 20233. Telephone (301-763-4100) for additional information on electronic media products.

*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 ABCs--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 Census of Population and Housing Guide*. It provides detailed information about all aspects of the census.

## FILE AVAILABILITY

The Public Use Microdata Samples (PUMS) file (10%) for Guam is offered on computer tape. A machine-readable data dictionary is included with the file without charge. Options include 6250 or 1600 bpi, ASCII, or EBCDIC, labeled or unlabeled. The files also are available on tape cartridges (IBM3480 or compatible format) for the same price, or on high density flexible diskettes in ASCII SDF format. When ordering, please use the order form at the end of this Chapter.

## TECHNICAL DESCRIPTION

The file contains two record types a "housing" record and a "person" record each consisting of

217 characters of data. Each housing unit record is followed by a variable number of persons records, one for each occupant. Vacant housing units will have no person record, and selected persons in group quarters will have a dummy housing record and a person record.

The block size for the files varies with each user's specifications; however, the standard block size is 32,340 characters for 1990 PUMS.

## SOFTWARE CONSIDERATIONS

The 1990 Public Use microdata file for Guam is a special type of nonrectangular file-hierarchical. That is, the file contains several record types each with different variables, rather than one gigantic record with all the variables. We release the PUMS in this format because of the tremendous amount of data contained in one record. The file is sorted to maintain the relationship between both record types.

Although these records are extremely large they can be handled by most statistical or report writing software. There are two basic record types: the housing unit record and the person record. Each of the records contains a serial number which links the persons in the housing unit to the proper housing unit record, so that a user no longer needs to worry about keeping the record sequence as the file was delivered.

In today's information processing environment, most standard statistical software packages are now capable of handling the file in either format: hierarchical or rectangular structure. Most software packages, such as SAS, SPSS, BMDP, Quicktab, Minitab, and some relational data base systems, will in fact rectangularize hierarchical files. Most of these software packages are designed for personal computers, as well. Further, the manuals accompanying most packages contain samples of code showing how to process the files. Several of the packages also have extract procedures already coded into the software.

The 1990 PUMS will be accompanied by electronic data dictionaries in a format which will allow the user to read in ASCII characters and prepare statements transforming the variables and their corresponding descriptions and values to the proper statements required by the software package of choice.

The files will be ASCII, with no special software appended, so as to be compatible with most software packages. But the technical documentation will include a

section on "how to use this file", where software concerns will be addressed. The user must be familiar with the processing system's limitations and the efficiency of the procedures within the software packages.

Users may also write their own code enabling them to perform custom tabulations on their system of choice.



## CHAPTER 1. INTRODUCTION

### OVERVIEW

Public-use microdata samples are computer accessible files which contain records for a sample of housing units, with information on the characteristics of each unit and the people in it. We exclude information which would identify a household or an individual in order to protect the confidentiality of respondents. Within the limits of the sample size and geographic detail, these files allow users to prepare virtually any tabulations they require.

For Guam, public-use microdata samples are available, representing 10% of the population and housing of Guam.

### WHAT IS MICRODATA?

We provide computer accessible data products in several formats as summary data or as microdata. Summary data are the type of data found in census printed reports, summary tape files, microfiche, and most special tabulations; microdata are the information collected from each person and housing unit on the questionnaire.

In summary data, the basic unit of analysis is a specific geographic area for which counts of persons or housing units (or aggregated data) in particular categories are provided. In microdata, the basic unit is an individual housing unit and the persons who live in it. Figure 1 illustrates the basic distinctions between summary data and microdata.

Often, there are two types of microdata: Confidential microdata include the census basic record types, computerized versions of the questionnaires collected from households, as coded and edited during census processing. The Census Bureau tabulates these confidential microdata in order to produce the summary data that go into the various reports, summary tape files (STFs), and special tabulations.

Public-use microdata samples are extracts from the confidential microdata taken in a manner that avoids disclosure of information about identifiable households or individuals.

### PROTECTING CONFIDENTIAL INFORMATION

All data released (in print or electronic media) by the Bureau of the Census are subject to strict confidentiality measures imposed by the legislation under which our data are collected: Title 13, U.S. Code which protects the

confidentiality of individual respondents. Responses to the questionnaire can be used only for statistical purposes, and Census Bureau employees are sworn to protect respondents' identities.

Records on public-use microdata samples are selected after the confidentiality edit is performed, and contain no names or addresses. Also, the Bureau limits the detail (topcodes, recodes) on place of residence, place of work, high incomes, and other selected items to further protect the confidentiality of the records.

Microdata records identify no geographic area with fewer than 100,000 inhabitants. Microdata samples include only a small fraction of the population, drastically limiting the chance that the record of a given individual is even contained in a public-use microdata file, much less identifiable.

### Uses Of Microdata Files

Public-use microdata files essentially make possible "do-it-yourself" special tabulations. Subject to the limitations of sample size and geographic identification, users can construct an infinite variety of tabulations interrelating any desired set of variables. Users have the same freedom to manipulate the data that they would have if they had collected the data in their own sample survey, yet these files offer the precision of census data collection techniques and sample sizes larger than would be feasible in most independent sample surveys.

Microdata samples will be useful to users (1) who are doing research that does not require the identification of specific small geographic areas or detailed cross tabulations for small populations, and (2) who have access to programming and computer time needed to process the samples. Microdata users frequently study relationships among census variables not shown in existing census tabulations, or concentrate on the characteristics of certain specially defined populations, such as unemployed homeowners or families with four or more children.

### SAMPLE DESIGN AND SIZE

The microdata file (10%) is a stratified sample drawn from a universe which is defined as all occupied housing units including all occupants, vacant housing units, persons in institutions and other group quarters in Guam.

The file contains weights for both the housing unit and the persons in the unit. The user can estimate the frequency of a particular characteristic for the entire population by summing the weight variables for records with that characteristic from the microdata file. A section of Chapter 4 discusses the preparation and verification of estimates (see page 4-1).

Reliability improves with increases in sample size, so the choice of sample size must represent a balance between the level of precision desired and the resources available for working with microdata files. By using tables provided in Chapter 3 (see page 3-2), one can estimate the degree to which sampling error will affect any specific estimate prepared from a microdata file of a particular sample size.

## SUBJECT CONTENT

Microdata files contain the full range of population and housing information collected in the 1990 census:

501 occupation categories, age by single years up to 80, wages in dollars up to \$50,000, and so forth. Because the samples provide data for all persons living in a sampled household, users can study how characteristics of household members are interrelated (for example, income and educational attainment of husbands and wives).

Information for each housing unit in the sample appears on a 217-character record with housing items, followed by a variable number of 217-character records with person's information, one record for each member of the household. Items on the housing record are listed beginning on page 5-1; items on the persons record are listed beginning on page 5-4. Although each of the items as collected is further defined in the glossary (reprinted from the 1990 Census Users' Guide) presented as Appendix B to this document, it is important to note that we modified several items on the microdata file to provide protection for individual respondents. We also include many transformed variables (recodes), such as those appearing on the STF 3A files, so that users can analyze many complex relationships between records. Data users will frequently want to generate additional variables or develop recodes to meet their individual needs.

While it is impossible to predict all the transformations (recodes) required by data users, we included many of the more common ones (household income, selected monthly owner costs, poverty status, and so forth). Transformations such as these, as well as corrections that apply to certain subjects, are discussed in Appendix C.

We edited the questionnaires for completeness and consistency, and made substitutions or allocations for any missing data. Allocation flags appear at the end of each record indicating each item which has been allocated. Thus, a user desiring to tabulate only actually observed values can eliminate variables with allocated values. Editing and allocation flags are discussed beginning on page 3-15.

Figure 1. Comparison of Summary Data With Information on Microdata Files

**SUMMARY DATA**

- Basic unit is an identified geographic entity
- Data summarized on people and housing in specified entity
- Available for small areas

**ILLUSTRATIVE SUMMARY DATA**

Place	Total population	Occupied housing units	Persons per unit	Renter occupied units	Gross rent		
					Under \$100	\$100–149	\$150–199
Agana	1,139	367	3.10	273	5	5	3
Mangilao	5,608	1,367	3.87	647	14	18	19
Tamuning	9,534	2,929	3.14	2,073	9	22	40

**PUBLIC-USE MICRODATA**

- Basic unit is an unidentified housing unit and its occupants
- Unaggregated data to be summarized by the user
- Allows detailed study of relationships among characteristics
- Not available for small areas

**ILLUSTRATIVE MICRODATA\***

	State of residence	Persons in household	Telephone	Complete plumbing	Monthly rent	Vehicles	Household type	
Housing unit #1	Guam	3	Yes	Yes	\$480	2	Married-couple family	
	Housing unit no.	Relationship	Sex	Age	Ethnicity	Place of birth	Occupation	Earnings
Person a	1	Householder	M	37	Chamorro	Guam	English teacher	\$28,100
Person b	1	Spouse	F	35	Palauan	Palau	NA	0
Person c	1	Child	M	6	Chamorro	Guam	NA	0
Housing unit #2	Guam	1	Yes	Yes	\$650	1	Nonfamily householder	
Person a	2	Householder	F	62	B	Guam	Postsecondary economics teacher	\$31,300
Housing unit #3	Guam	0	NA	Yes	\$300	NA	Vacant	

\* Public-use microdata samples do not actually contain alphabetic information. Such information is converted to numeric codes; for example, Guam has a numeric code of 66.

**GEOGRAPHIC IDENTIFICATION**

The Guam PUMS is for the island of Guam only.  
There is no additional geography.

## CHAPTER 2. HOW TO USE THIS FILE

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.

Chapter 1 describes microdata, Chapter 3 describes accuracy of the data, and Chapter 4 describes the sample design and estimation for Guam PUMS.

### USER NOTES

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

### DATA DICTIONARY

The data dictionary (code book) describes the file and provides character locations for each variable.

The components include a short mnemonic or field name for use with software packages; field size; starting position; and a description of field contents with possible values.

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 information about the data changes on PUMS while Appendix D outlines the data collection and processing procedures. A facsimile of the 1990 census questionnaire for Guam is in Appendix E.

Appendix F furnishes detailed information on all the data products of the 1990 census, as well as suggested sources of information and assistance. Appendix G (maps) is not applicable for Guam. The record layout for the machine-readable data dictionary file that accompanies each tape order is in Appendix H.

Appendix I contains the code lists used in processing the data for most sample products. These are especially helpful in determining the components included in categories such as ancestry and occupation. On the PUMS, the information on these lists may be changed for disclosure protection purposes. Those changes are indicated in the data dictionary and further explained in Appendix C.

### INTERNAL FILE LABELS

#### System Labels

Tape orders which specify labeled tapes will have a standard American National Standards Institute (ANSI) label. The system label consists of 17 characters, but only the first 12 are active. The remaining five characters will be 'x' filled. The 1990 Guam PUMS files have a Data Set Name (DSN) of PUMSQXGU.F01XXXXX.

#### User Labels

Each user tape will have two user header labels and two 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 and UHL2. UHL1 and UHL2 repeat information from the system label in HDR1 and HDR2.

## **User Trailer Labels**

The user trailer labels are designated UTL1 and User Trailer Labels.

UTL1 and UTL2 contain information from the system trailer label.

## **File Structure**

The file consists of a series of 217-character logical records of two types; housing and persons. Each housing unit record is followed by a variable number of person records, one for each member of the housing unit or none if vacant, as illustrated in figure 1. Each person in group quarters has two records--a dummy "housing unit" record (most nongeographic fields are not applicable), as well as a person record. We have included the housing unit serial number on both records to allow the user an option as to how to process the data--either rectangularly or hierarchically. Users can more closely approximate published data with the introduction of weights. We provide many of the recodes (data transformations) which appear on the summary tape file (STF 3A). While the changes increase the file size, we should see an associative increase in file utility.

In the text of this document, the numeric identification of a particular data item is the same as its character location within a record. Items on the housing record are prefixed with an *H*, items on the person record with a *P*. For instance, Ethnicity, item P14-15, is a two-digit code beginning in character 14 of the person record. We provide in the data dictionary, or record layout, mnemonic identifiers. Subsample identifiers appear only on the housing unit record. Thus, most tabulations of person characteristics require manipulation of both housing and person records. An item on the housing record (PERSON) indicates the exact number of person records following before the next housing record. This feature allows a program to anticipate what type of record will appear next, if necessary.

In today's data manipulation environment, users have many options for processing data and are limited only by the amount and type of resources. Most statistical software packages (e.g., BMDP, SAS, SPSS, Quicktab, and Minitab to name a few) are capable of handling the data either hierarchically or rectangularly. Many users may still want to create extract files with any desired household data repeated with each person's record. Users with limited resources (funds, personnel, software/hardware) may want to create or obtain extracts containing only those variables of interest.

All fields are numeric, except for the Record Type which are "H" and "P."

## **File Size**

Every file purchased from the Census Bureau includes a printout showing the total record count. In the Guam PUMS file, the total household record count is 4,395 and the total person record count is 13,234. The combined total is 17,629.

## **Record Sequence**

In order to provide an extra measure of protection from disclosure of individual households, we scramble the records to avoid any implication of geographic information beyond that which meets Census Bureau disclosure rules for the 1990 PUMS. Person records within household are sequenced by relationship code (P10). The householder record always immediately follows the housing unit record for an occupied unit. This feature simplifies tabulation of households or families by ancestry of householder, and even poverty status--since the desired indicators are always on the first person record. Where the household contains more than one person of a given relationship, person records appear in sequence of decreasing age (P22-23).

Persons sampled from within the same group quarters are not identifiable as such, since each has an independent dummy housing unit record.

## **Machine-Readable Documentation**

The file includes a machine readable "data dictionary" or record layout. A user can produce hard copy documentation for extract files or labels for tabulations created; or with minor modifications, can use the data dictionary file with software packages or user programs to automatically specify the layout of the microdata files.

## **Handling Invalid Codes**

The data dictionary shows each category as having a unique representation. Although we reviewed test files, we may have a small number of cases outside the specified range for a variable. We will correct these errors when found, but users may follow the standard census practice to assign invalid codes to the next lower numbered valid category. For example, on an allocation flag with valid codes 0, 2 and 3, a 1 would be counted with code 0, and a code of 4 or more would be counted with 3. Exceptions to this rule occur

in occupation and industry codes, where invalid codes are assigned to the next higher valid category.

#### Preparing and Verifying Tabulations

Estimation of totals - Estimates of complete-count census figures may be made from tabulations of public use microdata samples by using a simple inflation estimate - that is, summing the weights associated with that variable; (e.g. for housing characteristics, use the housing unit weight; for persons characteristics, use the person weight.) Those users using subsample numbers to vary the sample size must apply an appropriate factor, or, otherwise adjust the weights to derive an appropriate estimation of totals. We further explain the use of weights and subsample numbers in Chapter 4.

Estimation of percentages - a user can estimate percentages by simply dividing the weighted estimate of persons or housing units with a given characteristic by the weighted sample estimate for the base. Normally, this yields the same as would be obtained if one made the computation using sample tallies rather than weighted estimates. For example, the percentage of housing units with air conditioning in a one-in-one-hundred sample can be obtained by simply dividing the tally of sample housing units with air conditioning by the total number of sample housing units.

Verifying tabulations - Producing desired estimates from the public-use microdata samples is relatively easy. File structure and coding of items is straightforward. There are no missing data (see the section on allocations, page 3-38). Records not applicable for each item are assigned to specific "NA" categories, and it is frequently not necessary to determine in a separate operation whether a record is in the universe or not. PUMs "universe" and "variable" definitions may differ from other products produced from sample data primarily because of concerns about disclosure risks (e.g. PUMs files may have different topcodes from STF 3A, or the recodes may vary because the components were topcoded). A user must, however, anticipate the possibility of errors in his or her own processing. Thus, user tabulations should be verified against other available tallies. Two ways for the user to verify estimates follow:

1. Using control tabulations from the samples. As each public-use microdata sample was produced, counts of persons, housing units, vacant housing units, and group quarters persons selected into the sample were tallied. These control counts will be published as a supplement to this

documentation. (In the interim, counts for specific areas may be requested from Customer Services.) If users cannot replicate these exact counts, review of the user's programs, and the shipping advices accompanying the files are in order.

2. Using published data from the 1990 censuses. Tabulations from the 1990 census data base are available in the printed census publications and on summary tape files. Users may check the reasonableness of statistics derived from public-use microdata samples against these sources. A familiarity with summary data already available may also facilitate planning of tabulations to be made from microdata. Those publications series likely to be of greatest use for this purpose are listed in Figure 5. In comparing sample tabulations with published data one must carefully note the universe of the published tabulation. For instance, on microdata records, Industry (P97-99) is reported for the civilian labor force and for persons not in the labor force who reported having worked in 1985 or later. Industry tabulations in 1990 census publications are presented only for the employed population or the experienced civilian labor force. Thus, a tally of Industry for all persons from whom industry is reported in microdata records would not correspond directly to any published tabulation. **"A user should always pay particular attention to concept definitions as presented in the glossary."** One cannot, of course, expect exact agreement between census publications which are based on the complete census count, full sample estimates, or a subsample of the census sample and user estimates based on tallies of a 10-percent or smaller sample. They will inevitably differ to some extent due to chance in selection of actual cases for Public Use Microdata Samples. Since the amount of likely chance variation for a given statistic can be measured, any discrepancy beyond a certain level can be identified as a likely error in programming. Chapter 3 discusses sampling variability and its measurement. User experience has

indicated that careful verification of sample tabulations is essential--so important that it may frequently be advisable to include additional cells in a tabulation for no other reason than to provide counts or to yield marginal totals, not otherwise available, which may be verified against available tabulations.

## CHAPTER 3 - ACCURACY OF THE MICRODATA SAMPLE ESTIMATES

### INTRODUCTION

The tabulations prepared from a public use microdata sample are based on a subset of the 1990 census of Guam. The data summarized from this file are estimates of the actual figures that would have been obtained from a 100 percent enumeration. Estimates derived from this sample are expected to be different from the 100 percent figures because they are subject to sampling and non-sampling 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. Errors are introduced during the collection and processing phases of the census. A more detailed discussion of both sampling and nonsampling error is given below.

In microdata samples, the basic unit is an individual housing unit and the persons who live in occupied housing units or group quarters. However, microdata records in these samples do not contain names or addresses. A more detailed discussion of methods to protect confidentiality of individual responses follows.

### 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 was 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.

Since microdata records are the actual housing unit and person records, the Bureau of the Census takes further steps to prevent the identification of specific individuals, households, or housing units.

The main disclosure avoidance method used is to limit the geographic detail shown in the files. A geographic area must have a minimum of 100,000 population to be fully identified. Thus, the only geography indicated on the PUMS is Guam itself. Furthermore, certain variables are topcoded, or the actual value of the characteristics is replaced by a descriptive statistic, such as the median.

### SOURCES OF ERRORS IN THE DATA

Since the estimates that users produce 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, and so forth. 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 samples. The method of calculating standard errors and confidence intervals for the data in the Guam microdata sample is described in the next section.

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 chapter.

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 under report 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.

#### CALCULATIONS OF STANDARD ERRORS USING TABLES

A standard sampling theory text should be helpful if the user needs more information about confidence intervals and nonsampling errors.

Two methods for estimating standard errors of estimated totals and percentages are described in this section. The first method is very simple. This method uses already calculated standard errors for specific sizes of estimated totals and percentages given in Tables A and B, shown later in this section. The estimated standard errors shown in Tables A and B were calculated assuming simple random sampling, while the microdata sample was selected using a systematic sampling procedure. The numbers shown in Table C, referred to as design factors, are defined as the ratio of the standard error from the actual sample design to the standard error from a simple random sample.

The standard errors in Tables A and B used in conjunction with the appropriate design factors from Table C produce a reasonable measure of reliability for microdata sample estimates. An alternative methodology by which more precise standard errors can be obtained requires additional data processing and file manipulation. The trade off is more precision for more data processing. However, with the technology available today, the second method is preferable and strongly recommended. However, the standard error tables could be very useful. For instance, they would be useful when one is trying to determine, prior to purchase, what sample size will yield estimates of adequate precision for a given study. In some cases, a 10 percent sample is inadequate; in other cases, a 10 percent sample is more than adequate. For this purpose the method described in this section should produce an acceptable approximation. On the other hand, for many statistics, particularly from detailed cross-tabulations, standard errors

using the second method are also applicable to a wider variety of statistics, e.g., means and ratios.

To produce standard error estimates, one obtains (1) the unadjusted standard error for the characteristic that would result from a simple random sample design (of persons, families, or housing units) and estimation technique; and (2) a design factor, which partially reflects the effects of the actual sample design and estimation procedure used for the 1990 census of Guam public use microdata sample, for the particular characteristic estimated. The design factors provided in this chapter only pertain to individual data items (e.g., educational attainment, employment status) and are not entirely appropriate for use with detailed cross-tabulated data. To calculate the approximate standard error of a 10 percent sample estimate follow the steps given below.

1. Obtain the unadjusted standard error for the sampling rate to be used from Table A for estimated totals or from Table B for estimated percentages. Alternately, the formula given at the bottom of each table may be used to calculate the unadjusted standard error.

In using Tables A or the corresponding formula for estimated totals, use weighted figures rather than unweighted sample counts to select the appropriate row. To select the applicable column for person characteristics, use the approximate total housing units population in Guam of 135,000 (not just the total of the universe being examined), or use the approximate total count of housing units in Guam of 36,000 if the estimated total is a housing unit characteristic. Similarly in using Table B or the corresponding formula for estimated percentages, use weighted figures to select the appropriate column.

2. Use Table C to obtain the design factor for the characteristic (e.g., place of birth or educational attainment). If the estimate is a cross-tabulation of more than one characteristic, scan Table C for each appropriate factor and use the largest factor. Multiply the unadjusted standard error from Step 1 by the factor obtained in Step 2.

**Example 1: Standard Error of a Total** - Suppose we tally the 10 percent public use microdata sample for Guam and the sum of the PUMS weights for all persons in Guam is 133,152. The sum of the PUMS weights for those persons who are age 16 years and over and in the civilian labor force is 59,948.

The basic standard error for the estimated total is obtained from Table A or from the formula given below Table A. To avoid interpolation, the use of the formula will be demonstrated here. The formula for the basic standard error, SE, is:

$$SE(59,948) = \sqrt{9(59,948) \left(1 - \frac{59,948}{133,152}\right)}$$

$$= 545 \text{ persons}$$

The standard error of the estimated 59,948 persons 16 years and over who were in the civilian labor force is found by multiplying the basic standard error 545 by the appropriate design factor (Employment Status) from Table C. Suppose the design factor for Employment Status is 1.2, then the standard error is

$$SE(59,948) = 545(1.2) = 654 \text{ persons}$$

Note that in this example the total weighted count of persons in Guam of 133,152 was used.

**Example 2: Standard Error of a Percent** - Suppose there are 95,763 persons in Guam aged 16 years and over. The estimated percent of persons 16 years and over who were in the civilian labor force is 62.6. Using the formula given in Table B, the unadjusted standard error is found to be approximately 0.47 percent. The standard error for the estimated 62.6 percent of persons 16 years and over who were in the civilian labor force is  $0.47(1.2) = 0.56$  percentage points. Note that in this example the base is defined as the weighted count of persons 16 years old and over.

*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.*

**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<sub>x</sub> and SE<sub>y</sub> of estimates  $\hat{X}$  and  $\hat{Y}$*

$$SE_{(\hat{X} \pm \hat{Y})} = SE_{(\hat{X} - \hat{Y})} = \sqrt{(SE_{\hat{X}})^2 + (SE_{\hat{Y}})^2}$$

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 Guam PUMS 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.

For example, to determine the estimate of non-Black teachers, one may subtract the estimate of Black teachers from the estimate of total teachers. To determine the standard error of the estimate of non-Black teachers apply the above formula directly.

**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.

$$SE_{(X/P)} = \frac{\hat{X}}{\hat{Y}} \sqrt{\frac{(SE_{\hat{X}})^2}{\hat{X}^2} + \frac{(SE_{\hat{P}})^2}{\hat{Y}^2}}$$

**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, compute 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 AND INFERENCES BASED ON THE SAMPLE

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 Guam PUMS 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 chapter 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 that 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.

Table A: Unadjusted Standard Errors for Estimated Totals, 10 Percent Sample

ESTIMATED TOTAL	SIZE OF GEOGRAPHIC AREA TABULATED <sup>1</sup>	
	36,000	135,000
100	30	30
500	70	70
1,000	100	100
2,500	150	150
5,000	200	210
10,000	250	290
25,000	260	430
50,000	--	540
75,000	--	550
90,000	--	520
100,000	--	490
110,000	--	430
120,000	--	350
125,000	--	290
130,000	--	210

$$SE(\hat{Y}) = \sqrt{9\hat{Y} \left(1 - \frac{\hat{Y}}{N}\right)}$$

Where: N = Size of area  
 $\hat{Y}$  = Estimate of characteristic total

<sup>1</sup>Total count of persons, housing units, or families in area if the estimated total is a person, housing unit, or family characteristic, respectively.

Table B: Unadjusted Standard Error for Estimated Percentages, 10 Percent Sample  
 (Standard errors expressed in percentage points)

Estimated Percent	Base (weighted total) of percentage <sup>1</sup>											
	1K	1.5K	2.5K	5K	7.5K	10K	25K	50K	75K	100K	125K	135K
2 or 98	1.3	1.1	0.8	0.6	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1
5 or 95	2.1	1.7	1.3	0.9	0.8	0.7	0.4	0.3	0.2	0.2	0.2	0.2
10 or 90	2.8	2.3	1.8	1.3	1.0	0.9	0.6	0.4	0.3	0.3	0.3	0.2
15 or 85	3.4	2.8	2.1	1.5	1.2	1.1	0.7	0.5	0.4	0.3	0.3	0.3
20 or 80	3.8	3.1	2.4	1.7	1.4	1.2	0.8	0.5	0.4	0.4	0.3	0.3
25 or 75	4.1	3.4	2.6	1.8	1.5	1.3	0.8	0.6	0.5	0.4	0.4	0.4
30 or 70	4.3	3.5	2.7	1.9	1.6	1.4	0.9	0.6	0.5	0.4	0.4	0.4
35 or 65	4.5	3.7	2.9	2.0	1.7	1.4	0.9	0.6	0.5	0.5	0.4	0.4
50	4.7	3.9	3.0	2.1	1.7	1.5	0.9	0.7	0.5	0.5	0.4	0.4

<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.

$$SE(\hat{p}) = \sqrt{\frac{9}{B} \hat{p}(100 - p)}$$

Where: B = Base of estimated percentage (weighted total)  
 $\hat{p}$  = Estimated percentage

Table C: Unadjusted Standard Errors for Estimated Totals, 10 Percent Sample

CHARACTERISTIC	DESIGN FACTORS
POPULATION	
Type of Residence (Urban/Rural)	1.8
Age	1.2
Sex	1.2
Household Size	.9
Place of Birth	1.4
Residence in 1985	1.9
Ethnic origin	1.6
Language spoken at home	1.7
Frequency of English Usage	1.4
School Enrollment and type of school	.9
Education Attainment	.8
Veteran's status	1.3
Labor force status	1.2
Weeks worked in 1989	1.1
Occupation	1.1
Carpooling to work	.9
Travel time to work	.9
Marital status	1.3
Children ever born	1.8
Income	.8
Family income	.8
Household type and relationship	1.0
Citizenship	2.6
Class of worker	.8
Literacy	2.5
Departure time to work	.9
Household income in 1989	.6
Workers in family	.8
Industry	1.1
Poverty status	1.5
Year of entry	1.4
HOUSING	
Tenure	.3
Vacancy	.7
Bedrooms	.7
Units in structure	.7
Air conditioning	.8
Year structure built	.6
Persons per room	.9
Water supply	.9
Bathtub/shower	.8
Toilet facilities	.8
Sewage disposal	1.0
Condominium units	.4
Electric power	2.6
Selected items	1.0
Kitchen facilities	1.0
Vehicles available	1.1
Property value	.9
Gross rent	.8
Year moved into structure	.9
Households below poverty level	.8
Selected owner monthly costs	.9
Owner costs as percent of household income	1.0
Rent as percent of household income	.7
Owner by mortgage status	.8

In Example 1, the standard error of the 59,948 persons 16 years and over in Guam who were in the civilian labor force was found to be 654. Thus, a 90 percent confidence interval for this estimated total is found to be:

$$[59,948 - 1.645 (654)] \text{ to } [59,948 + 1.645(654)]$$

or

$$58,872 \text{ to } 61,024$$

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 males in Guam age 16 years and over who were in the civilian labor force was 35,200 and the total number of persons 16 years and over was 46,272. Thus, the estimated percentage of persons 16 years and over who were in the civilian labor force is 76.1 percent. The unadjusted standard error from Table B is 0.59 percentage points. The design factors table (Table C) shows the design factor to be 1.2 for "Labor Force Status." Thus, the approximate standard error of the percentage (76.1 percent) is  $0.59 \times 1.2 = 0.71$  percentage points.

Suppose the same data is collected for females and the estimated percentage of females 16 years and over who were in the civilian labor force is 48.2 percent with an approximate standard error of 0.82 percentage points.

Now suppose that one wished to obtain the standard error of the difference between males and females of the percentage 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 sexes is:

$$76.1 - 48.2 = 27.9 \text{ percent.}$$

Using the results of the previous example:

$$SE(27.9) = \sqrt{(SE(76.1))^2 + (SE(48.2))^2} = \sqrt{(0.71)^2 + (0.82)^2}$$

$$= 1.08 \text{ percentage points}$$

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

$$[27.9 - 1.645(1.08)] \text{ to } [27.9 + 1.645(1.08)]$$

or

$$26.1 \text{ to } 29.7$$

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. When, as in this example, the interval does not include zero, one can conclude, again with 90 percent confidence, that the

difference observed between the two sexes on this characteristic is greater than can be attributed to sampling error.

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 males who were 16 years and over and who were in the civilian labor force in Guam to the estimate of females who were 16 years and over and who were in the civilian labor force in Guam. The ratio of the two estimates of interest is:

$$35,200 / 23,855 = 1.48$$

$$SE(1.48) = \left( \frac{35200}{23855} \right) \sqrt{\frac{579^2}{(35200)^2} + \frac{504^2}{(23855)^2}}$$

$$= .04$$

Using the results above, the 90 percent confidence interval for this ratio would be:

$$[1.48 - 1.645(.04)] \text{ to } [1.48 + 1.645(.04)]$$

or

$$1.41 \text{ to } 1.55$$

**Selecting an Appropriate Sample Size Using Tables A through C** - One virtue in the use of the tables A through C for calculating standard errors and confidence intervals is that this method can be employed prior to making any sample tabulation, and thus, can help the user decide what sample size is most appropriate for a proposed study.

#### USING TABLES A THROUGH C FOR OTHER SAMPLE SIZES

Tables A through C may also be used to approximate the unadjusted standard errors for other sample sizes by adjusting for the sample size desired. The adjustment for sample size is obtained as follows:

Let  $f_1$  be the sampling rate for the sample size to be used. The adjustment for sample size can be read from the following table:

$f_1$	Sample Size Adjustment Factor
.09	1.06 Multiply the standard errors
.07	1.21 in Table A or B
.05	1.45 by this factor
.03	1.90
.01	3.32

For example, if the user were to select a subsample of one half of the 10 percent sample, i.e.,  $f_1 = .05$ , then the standard errors shown in Tables A or B for the 10 percent sample must be multiplied by 1.45 to obtain the standard errors for a .05 sample. The factor of 1.45 shows that the standard errors increase by 45 percent when the sample size is halved.

Alternatively, the user may wish to use the following formulas to directly calculate the unadjusted standard errors. For estimated totals, calculate

$$s_e(\hat{Y}) = \sqrt{\left(\frac{1}{f_1} - 1\right) \hat{Y}(1 - \hat{Y}/M)}$$

where  
N = size of area tabulated

$\hat{Y}$  = estimate (weighted) of characteristic total.

Example 1 shows the unadjusted standard error for the figure 59,948 to be 545. Using the above formula with  $f_1 = .05$  yields an unadjusted standard error  $SE(\hat{Y}) = 791$  for a 45 percent reduction in the standard error as shown in the above table.

For an estimated percentage, calculate

$$s_e(\hat{P}) = \sqrt{\left(\frac{1}{f_1} - 1\right) \frac{\hat{P}(100 - \hat{P})}{B}}$$

where  $\hat{P}$  = estimated percentage and  
B = base of estimated percentage (weighted estimate)

### ESTIMATION OF STANDARD ERRORS DIRECTLY FROM THE MICRODATA SAMPLES

Use of tables or formulas to derive approximate standard error as discussed above is simple and does not complicate processing. Nonetheless, a more accurate estimate of the standard error can be obtained from the samples themselves, using the random group method. Using this method it is also possible to compute standard errors for means, ratios, indexes, correlation coefficients, or other statistics for which the tables or formulas presented earlier do not apply.

The random group method does increase processing time somewhat since it requires that the statistic of interest, for example a total, be computed separately for each of up to 50 random groups. The variability of that statistic for the sample as a whole is estimated from the variability of the statistic among the various random groups within the sample.

The procedure for calculating a standard error by the random group method for various statistics is given below.

**Totals** - to obtain the standard errors of estimated totals the following method should be used. The random groups estimate of variance of x is given by

$$\text{var}(\hat{X}) = \left(\frac{t}{t-1}\right) \sum_{g=1}^t \left[ x_g - \frac{1}{t} \left( \sum_{g=1}^t x_g \right) \right]^2$$

or the computational formula

$$\text{var}(\hat{X}) = \left(\frac{t}{t-1}\right) \sum_{g=1}^t x_g^2 - t \bar{x}_g^2$$

where

t = number of random groups

$X_g$  = the weighted microdata sample total of the characteristic of interest from the g-th random group.

$$\bar{x}_g = \sum_{g=1}^t x_g / t, \text{ the average random group total}$$

The standard error of the estimated total is the square root of  $\text{var}(\hat{X})$ .

It is suggested that  $t=50$  for estimating the standard error of a total since, as it is discussed in the next chapter, each of the sample records was assigned a two-digit subsample number sequentially from 01 to 50. The two-digit number can be used to form 50 random groups.

For example, a sample case with 01 as the two-digit number will be in random group 1. All sample cases with 02 as the two digit number will be in random group 2, etc., up to 50 as the fiftieth random group. The reliability of the random group variance estimator is a function of both the kurtosis of the estimator and the number of groups t. If t is small, the coefficient of variation (CV) will be large, and therefore, the variance estimator will be of low precision. In general, the larger t is, the more reliable the variance estimator will be.<sup>1</sup>

**Percentages, Ratios, and Means** - To obtain the estimated standard error of a percent, ratio, or mean, the following

method should be used. Let  $\hat{r} = \frac{\hat{x}}{\hat{y}}$  be the estimated

percent, ratio, or mean where

$\hat{x}$  and  $\hat{y}$  = the estimated totals as defined above for the X and Y characteristics.

For the case where both numerator and denominator are obtained from the full microdata sample then the variance of  $\hat{r}$  is given by

$$\text{var}(\hat{r}) = \left(\frac{t}{t-1}\right) \left(\frac{1}{\hat{y}}\right)^2 \sum_{g=1}^t (x_g - \hat{r}y_g)^2$$

where  $t$  and  $x_g$  are defined above,

$\hat{y}$  = the weighted full microdata sample total for the  $y$  characteristic, and

$y_g$  = the corresponding weighted total for the  $g$ -th random group.

**Correlation Coefficients, and Regression Coefficients and Complex Statistics** - The random group method for computing the variance of correlation coefficients, regression coefficients, and other complex nonlinear statistics may be expressed as:

$$\text{var}(\hat{\theta}) = \frac{t}{(t-1)} \sum_{g=1}^t (\hat{\theta}_g - \hat{\theta})^2$$

where

$\hat{\theta}_g$  = the weighted estimate (at the tabulation area level) of the statistic of interest computed from the  $g$ -th random group, and

$\hat{\theta}$  = corresponding weighted estimate computed from the full microdata sample.

Care must be exercised when using this variance estimator for complex nonlinear statistics as its properties have not been fully explored for such statistics. In particular, the choice of the number of random groups must be considered more carefully. When using the 10 percent Guam PUMS, use of  $t=50$  is recommended. When using a subsample, the user should consider using a smaller number of random groups to ensure that each random group contains at least 25 records. Fewer than 50 random groups can be formed by appropriate combination of the two-digit subsample numbers. For example, to construct 25 random groups assign all records in which the subsample number is 01 or 26 to the first random group; all records in which the subsample number is 02 or 27 to the second random group, etc. Finally, assign all records in which the subsample number is 25 or 50 to random group 50. Ten random groups can be constructed by including all records having subsample numbers with the same "units" digit or "units"

<sup>1</sup>Wolter, Kirk M., Introduction to Variance Estimation, 1985, pp. 55-71.

digit plus 5 in a particular random group. For example, subsample numbers 05,10,...,50 would form one random group; subsample numbers 01,06,11,...,46 would form a second random group, etc.

## STANDARD ERRORS FOR SMALL ESTIMATES

Percentage estimates of zero and estimated totals of zero are subject to both sampling and nonsampling error. While the magnitude of the error is difficult to quantify, users should be aware that such estimates are nevertheless subject to both sampling and nonsampling error even though in the case of zero estimates the corresponding random groups estimate of variance will be zero.

A second point concerning standard errors, the standard error estimates obtained using the random groups method do not include all components of the variability due to nonsampling error that may be present in the data. Therefore, the standard error calculated using the methods described in this section represent a lower bound for the total error. Data users should be aware that in general confidence intervals formed using these estimated standard errors do not meet the stated levels of confidence. Data users are advised to be conservative when making inferences from the data provided in this data product.

## 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 eliminate completely 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. Several coverage improvement programs were implemented during the development of the census address list and 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.

**Respondent and Enumerator Error**--The persons 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 based on precensus tests, 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. 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.

**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.

Subsequent to field operations, remaining incomplete or inconsistent information on the questionnaire

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.

#### **USE OF ALLOCATION FLAGS IN THIS FILE**

As a result of the editing there are no blank fields or missing data in the Guam public use microdata sample file. Each field contains a data value or a "not applicable" indicator, except for the few items where allocation was not appropriate and a "not reported" indicator is included. For every subject item it is possible for the user to differentiate between entries which were allocated, by means of "allocation flags" in items H127 through H174, and P159 through P217 in the microdata file. For all items it is possible to compute the allocation rate and, if the rate is appreciable, compute the distribution of actually observed values (with allocated data omitted) and compare it with the overall distribution including allocated values. The flags indicate the changes in values between input and output.

These flags may indicate up to four possible types of allocations:

- A. Pre-edit - When the original entry was rejected because it fell outside the range of acceptable values.
- B. Consistency - Imputed missing characteristics based on other information recorded for the person or housing unit.

- C. Hot Deck - Supplied the missing information from the record of another person or housing unit.
- D. Cold Deck - Supplied missing information from a predetermined distribution.

In general, the allocation procedures provide better data than could be obtained by simply weighting up the observed distribution to account for missing values. The procedures reflect local variations in characteristics as well as variations among the strata used in imputation. There are, however, certain circumstances where allocated data may introduce undesirable bias. It may be particularly important to analyze allocations of data in detailed studies of subpopulations or in statistics derived from cross-classification of variables, such as correlation coefficients or measures of regression. The degree of editing required was greater for some subjects than for others. While the allocation procedure was designed to yield appropriate statistics for the overall distribution or for specific subpopulations (the strata used in the allocation process), allocated characteristics will not necessarily observe a valid relationship with other observed variables for the same individual. For example, consider a tabulation of persons 80 years old and over by income. Income allocations were made separately for different age groupings, including the category 65 years old and over, but not separately for persons 80 years old and over.

Since persons 65 to 70 or 75 are more likely to have significant earnings than persons 80 or over, allocated income data for the latter group might be biased upward. Thus, if the rate of allocations for the group is appreciably large, and a bias in the allocated value is evident, it may be desirable to exclude allocated data from the analysis.

It should also be apparent from this illustration that knowledge of the specific allocation procedures is valuable in detailed subject analysis. Descriptions of the editing and allocation procedures for each item are being incorporated in the History of the 1990 Census of Population and Housing to be published later. A user may contact either the Population Division or Housing and Households Economic Statistics Division, Bureau of the Census, if more information is desired on the allocation scheme for a specific subject item.

## CHAPTER 4 - SAMPLE DESIGN AND ESTIMATION

### SAMPLE DESIGN AND ESTIMATION FOR THE GUAM PUBLIC USE MICRODATA SAMPLES

This chapter discusses the selection procedure for the public use microdata samples in terms of two major operations, (1) the selection of the public use microdata samples from the persons and housing units included in the 1990 Guam census, and (2) estimation from the PUMS samples.

#### PRODUCING ESTIMATES OR TABULATIONS

Estimation of totals and percentages - The 1990 Guam Public Use Microdata Samples (PUMS) were self-weighted. All persons or housing units in the PUMS have a weight of 10. To produce estimates on tabulations of 100 percent characteristics from the PUMS files simply multiply the number of PUMS persons or housing units that possess the characteristic of interest by 10 (equivalent to adding the weights). For instance, if the characteristic of interest is total number of males aged 5-17, simply determine the sex and age of all persons and multiply the number of those who match the characteristic of interest by 10.

To get estimates of proportions simply divide the estimate of persons or housing units with a given characteristic by the base sample estimate. For example, the proportion of owner occupied housing units with plumbing facilities is obtained by dividing the PUMS estimate of owner occupied housing units with plumbing facilities by the PUMS estimates of total housing units.

To get estimates of characteristics such as the total number of related children in households for Guam, simply sum the value of the characteristic across all household records and multiply by 10. If the desired estimate is the number of households with at least one related child in household count all households with a value not equal to zero for the characteristic and multiply by 10.

#### SAMPLE DESIGN

For the 1990 Guam census, every person and housing unit received the same questionnaire. There were no separate short-form and long-form questionnaires for Guam, and consequently, no sample design was needed.

### SELECTION OF THE PUBLIC USE MICRODATA SAMPLES

A stratified 1-in-10 systematic selection procedure with equal probability was used to select the Guam public use microdata samples. The sampling universe was defined as all occupied housing units including all occupants, vacant housing units, and GQ persons in the census sample. The sample units were stratified during the selection process. The stratification was intended to improve the reliability of estimates derived from the public use microdata samples by defining strata within which there is a high degree of homogeneity among the census households with respect to characteristics of major interest.

A total of 99 strata were defined; 72 household strata, 24 strata for GQ persons, and 3 strata for vacant housing units. First, the units were divided into three major groups; households, vacant housing units, and GQ population. The household universe was stratified by family type and non-family, race of the householder, tenure, and age.

The vacant housing units universe was stratified by vacancy status. Finally, the GQ population was stratified by GQ type (institutions, non-institutions), race and age. The stratification matrices are defined in tables A, B, and C.

#### SUBSAMPLING THE PUMS FILES

During the sample selection operation, consecutive two-digit subsample numbers from 01 to 50 were assigned to each sample case in the Guam PUMS to allow for the designation of various size subsamples and, as discussed in the preceding chapter, to allow for the calculation of standard error. As an example, for the 10 percent public use microdata sample, the choice of records having subsample numbers with the same "units" digit or the "units" digit plus 5 (e.g., the two "units" digit includes subsample numbers (2,7,12,...,47) will provide a 1-in-100 subsample.

Samples of any size between 1/10 and 1/500 may be selected in a similar manner by using appropriate two-digit subsample numbers assigned to the microdata samples. Care must be exercised when selecting such samples. If only one "units" digit is required, the "units" digit should be randomly selected. If two "units" digits are required, the first should be randomly selected and the second should be either 5 more or 5 less than the first. Failure to use this

procedure, e.g., selection of records with the same "tens" digit instead of records with the same "units" digit or the "units" digit plus 5, would provide a 1-in-10 subsample but one that would be somewhat more clustered and as a result subject to larger sampling error.

**TABLE A**

**PUMS Stratification Matrices**

**Occupied Housing Units**

Household type	Race/Tenure	Asians		Pacific Islanders		Others (White, Black, American Indians, etc.)	
	Age	O	R	O	R	O	R
Family with own children under 18	0-59						
	60-74						
	75-89						
	90+						
Family without children under 18	0-59						
	60-74						
	75-89						
	90+						
Other household (Nonfamily)	0-59						
	60-74						
	75-89						
	90+						

O = Owner  
R = Renter

**Table B - Group Quarters**

GQ Type Race Age	Institutional			Noninstitutional		
	White Other	Black/American Indian, Eskimo or Aleut	Asian and Pacific Islander	White Other	Black/American Indian, Eskimo, or Aleut	Asian and Pacific Islander
0-59						
60-74						
75-89						
90+						

**Table C - Vacant Housing Units**

For Sale
For Rent
Other

## CHAPTER 5: RECORD CONTENTS

This chapter, in conjunction with several appendices, defines the record layout and applicable codes for the public-use microdata samples. The detailed data dictionary begins on page 5-10 for the housing record and page 5-17 for the person record, with explanatory notes on page C-1 in Appendix C.

For user convenience, we are providing several indexes which can be used for the Guam PUMS file. Below is an index to the basic data items. The index by character location of the items on the housing and person records follows. In these introductory pages, data fields are specified in the form "H24" or "P46-48," where the letter indicates the Housing or Person record and the numbers indicate the character positions occupied on that record. For example, "P46-48" is a three-character field beginning in character 46 of the person record. In the data dictionary, itself, the "P" or "H" designation appears only at the top of the page, and location is expressed in terms of two separate elements, the beginning location and the size for each mnemonic. The mnemonic is a name for a variable or item.

(PLEASE NOTE THAT THE VALUES FOR CERTAIN HOUSING VARIABLES HAVE SKIPPED NUMBERS. THE MISSING NUMBERS APPLY TO OUTLYING AREAS OTHER THAN GUAM).

### INDEX TO HOUSING ITEMS (BY DESCRIPTION)

<u>MNEMONIC</u>	<u>CHARACTER LOCATION</u>	<u>DESCRIPTION</u>
AAIRCOND	H144	Air conditioning allocation
ABATH	H137	Bath/shower allocation
ARADIO	H142	Battery operated radio allocation
SEWER	H36	Building connected to public water
ACOMMUSE	H163	Business in one-family house allocation
COMMUSE	H58	Business/Office in a one-family house
CONDOFEE	H82	Condo Fee (monthly amount)
ACONDO	H152	Condominium status allocation
CONDO	H42	Condominium
KITCHEN	H37	Cooking facilities
AKITCHEN	H147	Cooking facilities in/outside building allocation
GASCOST	H46	Cost for gas (average monthly amount)
WATRCOST	H49	Cost for water (average monthly amount)
FUELCOST	H51	Cost for fuel (average monthly amount)
ELECCOST	H43	Cost for electricity (average monthly amount)
ELECTRIC	H30	Electricity in house/apartment
AELECT	H140	Electricity in house/apartment allocation
AELECCOST	H153	Electricity (monthly cost) allocation
WATRHEAT	H26	Energy used by water heater
RFAMINC	H108	Family income
ATOILET	H138	Flush toilet in unit/building allocation
AFNDMAT	H131	Foundation material allocation
AFUELCST	H159	Fuel (monthly cost) allocation
AGASCOST	H155	Gas (monthly cost) allocation
RGRENT	H121	Gross rent
RGRAP1	H125	Gross rent as percent of HH income
RGQTYPE	H14	Group quarters institution
STATE	H10	Guam
FLSHTOIL	H28	Have a flush toilet
BATH	H27	Have a bathtub or shower
RADIO	H32	Have a battery operated radio
TELEVISN	H33	Have a television set
AIRCOND	H34	Have air conditioning
OWNHOME	H53	Home ownership status
AHOTWTR	H135	Hot water allocation
PIPEDWTR	H25	Hot or cold piped water in the building
RHHINC	H99	Household income (in dollars)
RFAMTYPE	H88	Household/family type
SERIALNO	H2	Housing unit/GQ person serial number
HWGT	H6	Housing Weight
APROPINS	H166	Insurance on property allocation
INSAMT	H68	Insurance payment
RKITCHEN	H106	Kitchen facilities
ROOFMAT	H20	Material used for roof
FOUNDMAT	H21	Material used for foundation
WALLMAT	H19	Material used for outside walls

INDEX TO HOUSING ITEMS (BY DESCRIPTION)--Con.

<u>MNEMONIC</u>	<u>CHARACTER LOCATION</u>	<u>DESCRIPTION</u>
RMLIDEP	H105	Military Dependency
RSMOCP1	H119	Monthly owner costs (percent of HH income 1989)
RRENT	H54	Monthly rent
ACONDFEE	H172	Monthly condominium fee allocation
ARENT	H162	Monthly rent allocation
VACANCY3	H87	Months vacant
AMONVAC	H174	Months vacant allocation
AMORTAMT	H168	Mortgage amount allocation
AINSINCL	H170	Mortgage include insurance allocation
ATAVINCL	H169	Mortgage include taxes allocation
TAXINCL	H77	Mortgage include real estate taxes
AMORTG	H167	Mortgage status allocation
MORTGAG3	H73	Mortgage payment (monthly amount)
MORTGAGE	H72	Mortgage on this property
INSINCL	H78	Mortgage include insurances
AUTOS	H41	Motor vehicles used by HH members
RRLCHLD4	H92	No. of related children < 18 years old
RRLCHLD3	H91	No. of related children 6 - 17 years old
RRLCHLD1	H89	No. of related children < age 6
R65OVER	H94	No. of related persons > = 65 years old
RRLCHLD2	H90	No. of related children 5 - 17 years old
R75OVER	H95	No. of related persons > = 75 years old
PERSONS	H12	Number of person records following this housing record
ABEDROOM	H134	Number of bedrooms allocation
AROOMS	H133	Number of rooms allocation
BEDROOMS	H24	Number of bedrooms
AVEHICLE	H151	Number of motor vehicles allocation
ROOMS	H23	Number of rooms in the house
RRELPERS	H96	Number of related persons in HH
ROWNOCCU	H114	Occupied housing unit
RPLUMBING	H107	Plumbing facilities
VALUE	H59	Property value
AVALUE	H164	Property value allocation
RTAXES	H65	Property tax
ASEWER	H146	Public sewer allocation
RECTYPE	H1	Record Type
AREFRIG	H149	Refrigerator in building allocation
REFRIG	H39	Refrigerator in building
AFUELINC	H160	Rent/condo fee include fuel allocation
AELECINC	H154	Rent/condo fee include electricity allocation
AWTRINC	H158	Rent/condo fee include water allocation
AGASINC	H156	Rent/condo fee include gas allocation
AROOMMAT	H130	Roof material allocation
MORT2AMT	H79	Second mortgage (monthly amount)
AMOR2AMT	H171	Second mortgage (monthly) allocation
ROWNRCST	H115	Selected monthly owner costs
ASINK	H150	Sink with piped water in building allocation
SINK	H40	Sink with piped water
WATER	H35	Source of water
HSUBSTR	H8	Subsample number (Use to pull extracts - 1/1000/etc.)
APROPTAX	H165	Taxes on property allocation
APHONE	H141	Telephone in house/apartment allocation
TELEPHON	H31	Telephone in house/apartment
ATELEVSN	H143	Television set allocation
ATENURE	H161	Tenure allocation
UNITTYPE	H15	Type of unit
TOILET	H29	Type of toilet facilities
STOVE	H38	Type of cooking facilities
AWTRHTR	H136	Type of water heater allocation
ABLDTYPE	H127	Type of building allocation
ATOLTYPE	H139	Type of toilet allocation
AKITFAC	H148	Type of cooking facilities allocation
VACANCY2	H86	Unit Boarded up
BLDGTYPE	H16	Units in structure

INDEX TO HOUSING ITEMS (BY DESCRIPTION)--Con.

<u>MNEMONIC</u>	<u>CHARACTER LOCATION</u>	<u>DESCRIPTION</u>
AVACSTAT	H173	Vacancy status allocation
VACANCY1	H85	Vacancy status
AWALLMAT	H129	Wall material allocation
AWTRCOST	H157	Water (monthly cost) allocation
AWTRSRC	H145	Water source allocation
AYRBUILT	H132	When structure first built allocation
AYRMOVED	H128	When moved into this house allocation
YRMOVED	H18	When moved into this house\apt.
YRBUILT	H22	When building first built
RWORKFAM	H98	Workers in family
FILLER	H175	

INDEX TO PERSON ITEMS (BY DESCRIPTION)

<u>MNEMONIC</u>	<u>CHARACTER LOCATION</u>	<u>DESCRIPTION</u>
AGE	P22	Age
AAGE	P163	Age allocation
ANCSTRY2	P19	Ancestry - Second entry (See Appendixes C and I)
ANCSTRY1	P16	Ancestry - First entry (see Appendixes C and I)
AANCEST1	P161	Ancestry--first entry allocation
AANCEST2	P162	Ancestry--second entry allocation
AVAIL	P95	Available for work
CITIZEN	P28	Citizenship
ACITIZEN	P166	Citizenship allocation
ACCLASS	P205	Class of worker allocation
CLASS	P103	Class of worker
ARELATN	P159	Detailed relationship allocation
AWAGE89	P209	Earn any wages in 1989 allocation
AYEARSCH	P169	Education attainment allocation
YEARSCH	P34	Educational attainment
RESR	P78	Employment status recode
RETHNIC	P14	Ethnicity
INCOME2	P114	Farm/non-farm business income
APOBFATH	P171	Father's place of birth allocation
POBFATHER	P37	Father's place of birth (see Appendixes C and I)
HOURS	P80	Hours worked last week
AHOUR89	P208	Hours worked per week last year allocation
AHOUR	P196	Hours worked last week allocation
SERIALNO	P2	Housing unit/GQ person serial number
AINDSTRY	P203	Industry code allocation
RINDSTRY	P97	Industry
INCOME3	P120	Interest/dividend/rental income
AINTINC	P211	Interest income allocation
FRQNTLAN	P54	Is this language (LANG2) spoken more frequently than English?
AWRKISL	P197	Island/state/country where worked last week allocation
POWISL	P82	Island/state/foreign country where worked last week (see Appendixes C and I)
ALANG1	P177	Language other than English allocation
AFRQLAN	P179	Language spoken more frequently at home allocation
LANG1	P50	Language other than English at home
ALITRCY	P176	Literacy allocation
LITERACY	P49	Literacy--know how to read/write
LOOKING	P94	Looking for work
AMARITAL	P164	Marital status allocation
MARITAL	P24	Marital status
MIGISL	P46	Migration--island/state/country (see Appendixes C and I)
AMIGISL	P175	Migration--island/state/country allocation
MILDEPEN	P43	Military dependency
MILRESV	P56	Military Reserves/National Guard
MILITARY	P55	Military service
AMILDEP	P173	Military dependency allocation
AMILITRY	P180	Military service allocation
AMILRES	P181	Military reserve/National Guard allocation
MOBILIM	P71	Mobility limitation
MOBILITY	P44	Mobility status (lived here on April 1, 1985)
MOBILIT	P174	Mobility status allocation
AMOBLMT	P193	Mobility limitation allocation
POBMOTHER	P40	Mother's place of birth (see Appendixes C and I)
APOBMOTH	P172	Mother's place of birth allocation
ANETINC	P210	Net income in 1989 allocation
ROWNCHL3	P77	Number of own children under 18 years old
FERTIL	P73	Number of children ever born
ROWNCHL1	P75	Number of own children < 6 years old
ROWNCHL2	P76	Number of own children age 6-17
AFERTIL	P195	Number of children ever born allocation
OCCUP	P100	Occupation
AOCCUP	P204	Occupation code allocation
RESP	P156	Parent's employment status
APENSINC	P214	Pension income allocation

INDEX TO PERSON ITEMS (BY DESCRIPTION)--Con.

<u>MNEMONIC</u>	<u>CHARACTER LOCATION</u>	<u>DESCRIPTION</u>
INCOME6	P136	Pension income
PSEQNO	P8	Person sequence number within HH
PWGT	P6	Person's weight
APERSCAR	P194	Personal care limitation allocation
PERSCARE	P72	Personal care limitation
APOB	P165	Place of birth allocation
RPOB	P25	Place of birth (see Appendixes C and I)
POVERTY	P155	Poverty level status
AMEANS	P198	Principal transportation to work allocation
MEANS	P85	Principal means of transportation to work
MILBENE	P68	Receive military benefits/VA compensation
AMILBENE	P190	Received military disability/survivor benefits allocation
RECTYPE	P1	Record Type
RELAT1	P10	Relationship to householder code
AREMTINC	P215	Remittance income allocation
INCOME7	P141	Remittance income
RSYRSRES	P45	Residence 5 years ago
ASCHOOL	P168	School enrollment allocation
SCHOOL	P33	School enrollment
SEPT80	P59	Served September 1980 or later
VIETNAM	P61	Served Vietnam ERA (August 1964 - April 1975)
KOREAN	P63	Served Korean Conflict (June 1950 - January 1955)
WWII	P64	Served World War II (September 1940 - July 1947)
OTHRSERV	P65	Served any other time
FEB55	P62	Served February 1955 to July 1964
MAY75	P60	Served May 1975 to August 1980
AMAY75	P183	Served May 1975 to August 1980 allocation
AWWI	P187	Served World War II allocation
AVIETNAM	P184	Served Vietnam Era allocation
AFEB55	P185	Served February 1955 to July 1964 allocation
ASEPT80	P182	Served September 1980 or later allocation
AOTHER	P188	Served any other time allocation
AKOREAN	P186	Served Korean Conflict allocation
ASEX	P160	Sex allocation
SEX	P13	Sex
ASSINC	P212	Social Security income allocation
INCOME4	P126	Social Security/Railroad Retirement Income
INCOME5	P131	SSI/AFDC/Other public assistance income
ASSIINC	P213	SSI/AFDC/Public assistance income allocation
RSUBFMRL	P158	Subfamily relationships
RSUBFAM	P157	Subfamily sequence number
TMPABSNT	P93	Temporary absence from work last week
ADEPART	P200	Time of departure for work allocation
DEPART	P87	Time of departure for work (hour and minute)
INCOME9	P149	Total income in 1989
ATOTINC	P217	Total income in 1989 allocation
ATRVTIME	P201	Travel time to work allocation
TRAVTIME	P91	Travel time to work--minutes
HOUR89	P107	Usual hours worked per week last year (1989)
INCOME8	P145	VA/child support/alimony income
RIDERS	P86	Vehicle occupancy
ARIDERS	P199	Vehicle occupancy allocation
AVETINC	P216	Veteran benefits income allocation
RVETSERV	P57	Veterans' period of service
AVOCEDUC	P170	Vocational training allocation
VOCEDUC	P36	Vocational training received
INCOME1	P109	Wages earned in 1989
AWEEK89	P207	Weeks worked last year allocation
WEEK89	P105	Weeks worked last year (1989)
LANG2	P51	What language other than English (see Appendixes C and I)
ALANG2	P178	What language other than English allocation
DISABL2	P70	Work prevented status
DISABL1	P69	Work limitation status
ADISAB2	P192	Work prevention status allocation

INDEX TO PERSON ITEMS (BY DESCRIPTION)--Con.

<u>MNEMONIC</u>	<u>CHARACTER LOCATION</u>	<u>DESCRIPTION</u>
ADISAB1	P191	Work limitation status allocation
AWORK89	P206	Worked last year allocation
WORKLWK	P79	Worked last week
WORK89	P104	Worked last year (1989)
AYRWORK	P202	Year last worked allocation
IMMIGR	P29	Year of entry in Guam
AIMMIGR	P167	Year of entry in Guam allocation
YEARWRK	P96	Year last worked
YRSSERV	P66	Years of active duty military service
AYRSSERV	P189	Years of active duty military service allocation

INDEX TO HOUSING ITEMS (BY CHARACTER LOCATION)

<u>MNEEMONIC</u>	<u>CHARACTER LOCATION</u>	<u>DESCRIPTION</u>
RECTYPE	H1	Record Type
SERIALNO	H2	Housing unit/GQ person serial number
HWT	H6	Housing Weight
HSUBSTR	H8	Subsample number (Use to pull extracts - 1/1000/etc.)
STATE	H10	Guam
PERSONS	H12	Number of person records following this housing record
RGQTYPE	H14	Group quarters institution
UNITTYPE	H15	Type of unit
BLDGTYPE	H16	Units in structure
YRMOVED	H18	When moved into this house\apt.
WALLMAT	H19	Material used for outside walls
ROOFMAT	H20	Material used for roof
FOUNDMAT	H21	Material used for foundation
YRBUILT	H22	When building first built
ROOMS	H23	Number of rooms in the house
BEDROOMS	H24	Number of bedrooms
PIPEDWTR	H25	Hot or cold piped water in the building
WATRHEAT	H26	Energy used by water heater
BATH	H27	Have a bathtub or shower
FLSHTOIL	H28	Have a flush toilet
TOILET	H29	Type of toilet facilities
ELECTRIC	H30	Electricity in house/apartment
TELEPHON	H31	Telephone in house/apartment
RADIO	H32	Have a battery operated radio
TELEVISN	H33	Have a television set
AIRCOND	H34	Have air conditioning
WATER	H35	Source of water
SEWER	H36	Building connected to public water
KITCHEN	H37	Cooking facilities
STOVE	H38	Type of cooking facilities
REFRIG	H39	Refrigerator in building
SINK	H40	Sink with piped water
AUTOS	H41	Motor vehicles used by HH members
CONDO	H42	Condominium
ELECCOST	H43	Cost for electricity (average monthly amount)
GASCOST	H46	Cost for gas (average monthly amount)
WATRCOST	H49	Cost for water (average monthly amount)
FUELCOST	H51	Cost for fuel (average monthly amount)
OWNHOME	H53	Home ownership status
RRENT	H54	Monthly rent
COMMUSE	H58	Business/Office in a one-family house
VALUE	H59	Property value
RTAXES	H65	Property tax
INSAMT	H68	Insurance payment
MORTGAGE	H72	Mortgage on this property
MORTGAG3	H73	Mortgage payment (monthly amount)
TAXINCL	H77	Mortgage include real estate taxes
INSINCL	H78	Mortgage include insurances
MORT2AMT	H79	Second mortgage (monthly amount)
CONDOFEE	H82	Condo Fee (monthly amount)
VACANCY1	H85	Vacancy status
VACANCY2	H86	Unit Boarded up
VACANCY3	H87	Months vacant
RFAMTYPE	H88	Household/family type
RRLCHLD1	H89	No. of related children < age 6
RRLCHLD2	H90	No. of related children 5 - 17 years old
RRLCHLD3	H91	No. of related children 6 - 17 years old
RRLCHLD4	H92	No. of related children < 18 years old
R65OVER	H94	No. of related persons > = 65 years old
R75OVER	H95	No. of related persons > = 75 years old
RRELPER5	H96	Number of related persons in HH
RWORKFAM	H98	Workers in family
RHHINC	H99	Household income (in dollars)
RMILDEP	H105	Military Dependency

RECORD CONTENTS

INDEX TO HOUSING ITEMS (BY CHARACTER LOCATION)--Con.

<u>MNEMONIC</u>	<u>CHARACTER LOCATION</u>	<u>DESCRIPTION</u>
RKITCHEN	H106	Kitchen facilities
RPLUMBING	H107	Plumbing facilities
RFAMINC	H108	Family income
ROWNOCU	H114	Occupied housing unit
ROWNRCS	H115	Selected monthly owner costs
RSMOCP	H119	Monthly owner costs (percent of HH income 1989)
RGRENT	H121	Gross rent
RGRAP	H125	Gross rent as percent of HH income
ABLDTYPE	H127	Type of building allocation
AYRMOVED	H128	When moved into this house allocation
AWALLMAT	H129	Wall material allocation
AROOMMAT	H130	Roof material allocation
AFNDMAT	H131	Foundation material allocation
AYRBUILT	H132	When structure first built allocation
AROOMS	H133	Number of rooms allocation
ABEDROOM	H134	Number of bedrooms allocation
AHOTWTR	H135	Hot water allocation
AWTRHTR	H136	Type of water heater allocation
ABATH	H137	Bath/shower allocation
ATOILET	H138	Flush toilet in unit/building allocation
ATOLTYPE	H139	Type of toilet allocation
AEELECT	H140	Electricity in house/apartment allocation
APHONE	H141	Telephone in house/apartment allocation
ARADIO	H142	Battery operated radio allocation
ATELEVS	H143	Television set allocation
AAIRCOND	H144	Air conditioning allocation
AWTRSRC	H145	Water source allocation
ASEWER	H146	Public sewer allocation
AKITCHEN	H147	Cooking facilities in/outside building allocation
AKITFAC	H148	Type of cooking facilities allocation
AREFRIG	H149	Refrigerator in building allocation
ASINK	H150	Sink with piped water in building allocation
AVEHICLE	H151	Number of motor vehicles allocation
ACONDO	H152	Condominium status allocation
AEECOST	H153	Electricity (monthly cost) allocation
AEELEINC	H154	Rent/condo fee include electricity allocation
AGASCOST	H155	Gas (monthly cost) allocation
AGASINC	H156	Rent/condo fee include gas allocation
AWTRCOST	H157	Water (monthly cost) allocation
AWTRINC	H158	Rent/condo fee include water allocation
AFUELCST	H159	Fuel (monthly cost) allocation
AFUELINC	H160	Rent/condo fee include fuel allocation
ATENURE	H161	Tenure allocation
ARENT	H162	Monthly rent allocation
ACOMMUSE	H163	Business in one-family house allocation
AVALUE	H164	Property value allocation
APROPTAX	H165	Taxes on property allocation
APROPINS	H166	Insurance on property allocation
AMORTG	H167	Mortgage status allocation
AMORTAMT	H168	Mortgage amount allocation
ATAXINCL	H169	Mortgage include taxes allocation
AINSINCL	H170	Mortgage include insurance allocation
AMOR2AMT	H171	Second mortgage (monthly) allocation
ACONDFEE	H172	Monthly condominium fee allocation
AVACSTAT	H173	Vacancy status allocation
AMONVAC	H174	Months vacant allocation
FILLER	H175	

INDEX TO PERSON ITEMS (BY CHARACTER LOCATION)

<u>MNEMONIC</u>	<u>CHARACTER LOCATION</u>	<u>DESCRIPTION</u>
RECTYPE	P1	Record Type
SERIALNO	P2	Housing unit/GQ person serial number
PWGT	P6	Person's weight
PSEQNO	P8	Person sequence number within HH
RELAT1	P10	Relationship to householder code
SEX	P13	Sex
RETHNIC	P14	Ethnicity
ANCSTRY1	P16	Ancestry - First entry (see Appendixes C and I)
ANCSTRY2	P19	Ancestry - Second entry (See Appendixes C and I)
AGE	P22	Age
MARITAL	P24	Marital status
RPOB	P25	Place of birth (see Appendixes C and I)
CITIZEN	P28	Citizenship
IMMIGR	P29	Year of entry in Guam
SCHOOL	P33	School enrollment
YEARSCH	P34	Educational attainment
VOCEDUC	P36	Vocational training received
POBFATHER	P37	Father's place of birth (see Appendixes C and I)
POBMOTHER	P40	Mother's place of birth (see Appendixes C and I)
MILDEPEN	P43	Military dependency
MOBILITY	P44	Mobility status (lived here on April 1, 1985)
RSYRSRES	P45	Residence 5 years ago
MIGISL	P46	Migration--island/state/country (see Appendixes C and I)
LITERACY	P49	Literacy--know how to read/write
LANG1	P50	Language other than English at home
LANG2	P51	What language other than English (see Appendixes C and I)
FRONTLAN	P54	Is this language (LANG2) spoken more frequently than English?
MILITARY	P55	Military service
MILRESV	P56	Military Reserves/National Guard
RVETSERV	P57	Veterans' period of service
SEPT80	P59	Served September 1980 or later
MAY75	P60	Served May 1975 to August 1980
VIETNAM	P61	Served Vietnam ERA (August 1964 - April 1975)
FEB55	P62	Served February 1955 to July 1964
KOREAN	P63	Served Korean Conflict (June 1950 - January 1955)
WJII	P64	Served World War II (September 1940 - July 1947)
OTHRSERV	P65	Served any other time
YRSSERV	P66	Years of active duty military service
MILBENE	P68	Receive military benefits/VA compensation
DISABL1	P69	Work limitation status
DISABL2	P70	Work prevented status
MOBILLIM	P71	Mobility limitation
PERSCARE	P72	Personal care limitation
FERTIL	P73	Number of children ever born
ROWNCHIL1	P75	Number of own children < 6 years old
ROWNCHL2	P76	Number of own children age 6-17
ROWNCHL3	P77	Number of own children under 18 years old
RESR	P78	Employment status recode
WORKLWK	P79	Worked last week
HOURS	P80	Hours worked last week
POWISL	P82	Island/state/foreign country where worked last week (see Appendixes C and I)
MEANS	P85	Principal means of transportation to work
RIDERS	P86	Vehicle occupancy
DEPART	P87	Time of departure for work (hour and minute)
TRAVTIME	P91	Travel time to work--minutes
TMPABSNT	P93	Temporary absence from work last week
LOOKING	P94	Looking for work
AVAIL	P95	Available for work
YEARWRK	P96	Year last worked
RINDSTRY	P97	Industry
OCCUP	P100	Occupation
CLASS	P103	Class of worker
WORK89	P104	Worked last year (1989)

INDEX TO PERSON ITEMS (BY CHARACTER LOCATION)--Con.

<u>MNEMONIC</u>	<u>CHARACTER LOCATION</u>	<u>DESCRIPTION</u>
WEEK89	P105	Weeks worked last year (1989)
HOUR89	P107	Usual hours worked per week last year (1989)
INCOME1	P109	Wages earned in 1989
INCOME2	P114	Farm/non-farm business income
INCOME3	P120	Interest/dividend/rental income
INCOME4	P126	Social Security/Railroad Retirement Income
INCOME5	P131	SSI/AFDC/Other public assistance income
INCOME6	P136	Pension income
INCOME7	P141	Remittance income
INCOME8	P145	VA/child support/alimony income
INCOME9	P149	Total income in 1989
POVERTY	P155	Poverty level status
RESP	P156	Parent's employment status
RSUBFAM	P157	Subfamily sequence number
RSUBFMRL	P158	Subfamily relationships
ARELATN	P159	Detailed relationship allocation
ASEX	P160	Sex allocation
AANCEST1	P161	Ancestry--first entry allocation
AANCEST2	P162	Ancestry--second entry allocation
AAGE	P163	Age allocation
AMARITAL	P164	Marital status allocation
APOB	P165	Place of birth allocation
ACITIZEN	P166	Citizenship allocation
AIMMIGR	P167	Year of entry in Guam allocation
ASCHOOL	P168	School enrollment allocation
AYEARSCH	P169	Education attainment allocation
AVOCEDOC	P170	Vocational training allocation
APOBFATH	P171	Father's place of birth allocation
APOBMOTH	P172	Mother's place of birth allocation
AMILDEP	P173	Military dependency allocation
AMOBILIT	P174	Mobility status allocation
AMIGISL	P175	Migration--island/state/country allocation
ALITRCY	P176	Literacy allocation
ALANG1	P177	Language other than English allocation
ALANG2	P178	What language other than English allocation
AFRQLAN	P179	Language spoken more frequently at home allocation
AMILITRY	P180	Military service allocation
AMILRES	P181	Military reserve/National Guard allocation
ASEPT80	P182	Served September 1980 or later allocation
AMAY75	P183	Served May 1975 to August 1980 allocation
AVIETNAM	P184	Served Vietnam Era allocation
AFEB55	P185	Served February 1955 to July 1964 allocation
AKOREAN	P186	Served Korean Conflict allocation
AWII	P187	Served World War II allocation
AOTHER	P188	Served any other time allocation
AYRSSERV	P189	Years of active duty military service allocation
AMILBENE	P190	Received military disability/survivor benefits allocation
ADISAB1	P191	Work limitation status allocation
ADISAB2	P192	Work prevention status allocation
AMOBLMT	P193	Mobility limitation allocation
APERSCAR	P194	Personal care limitation allocation
AFERTIL	P195	Number of children ever born allocation
AHOUR	P196	Hours worked last week allocation
AWRKISL	P197	Island/state/country where worked last week allocation
AMEANS	P198	Principal transportation to work allocation
ARIDERS	P199	Vehicle occupancy allocation
ADEPART	P200	Time of departure for work allocation
ATRVTIME	P201	Travel time to work allocation
AYRWORK	P202	Year last worked allocation
AINDSTRY	P203	Industry code allocation
AOCCUP	P204	Occupation code allocation
ACCLASS	P205	Class of worker allocation
AWORK89	P206	Worked last year allocation
AWEEK89	P207	Weeks worked last year allocation

INDEX TO PERSON ITEMS (BY CHARACTER LOCATION)--Con.

<u>MNEMONIC</u>	<u>CHARACTER LOCATION</u>	<u>DESCRIPTION</u>
AHOUR89	P208	Hours worked per week last year allocation
AWAGE89	P209	Earn any wages in 1989 allocation
ANETINC	P210	Net income in 1989 allocation
AINTINC	P211	Interest income allocation
ASSINC	P212	Social Security income allocation
ASSINC	P213	SSI/AFDC/Public assistance income allocation
APENSINC	P214	Pension income allocation
AREMTINC	P215	Remittance income allocation
AVETINC	P216	Verteran benefits income allocation
ATOTINC	P217	Total income in 1989 allocation

DATA	SIZE	BEGIN			
D	RECTYPE	1	1	V	3 .1980-1984
V	H			V	4 .1970-1979
	Record Type			V	5 .1960-1969
				V	6 .1959-Earlier
D	SERIALNO	4	2	D	WALLMAT 1 19
V	0001..				Material used for outside walls
	4395			V	0 .NA (GQ)
				V	1 .Concrete
				V	2 .Concrete Blocks
				V	3 .Metal
				V	4 .Wood
				V	5 .Other
D	HWGT	2	6	D	ROOFMAT 1 20
V	10				Material used for roof
				V	0 .NA (GQ)
				V	1 .Concrete
				V	2 .Metal
				V	3 .Wood
				V	4 .Thatch
				V	5 .Other
D	HSUBSTR	2	8	D	FOUNDMAT 1 21
V	01..50				Material used for foundation
				V	0 .NA (GQ)
				V	1 .Concrete
				V	2 .Wood
				V	3 .Other
D	STATE	2	10	D	YRBUILT 1 22
V	66				When building first built
				V	0 .NA (GQ)
				V	1 .1989-1990
				V	2 .1985-1988
				V	3 .1980-1984
				V	4 .1970-1979
				V	5 .1960-1969
				V	6 .1950-1959
				V	7 .1940-1949
				V	8 .1939 or earlier
D	PERSONS	2	12	D	ROOMS 1 23
V	00				Number of rooms in the house
V	01			V	0 .NA (GQ)
V	02..21			V	1 .1 Room
				V	2 .2 Rooms
				V	3 .3 Rooms
				V	4 .4 Rooms
				V	5 .5 Rooms
				V	6 .6 Rooms
				V	7 .7 Rooms
				V	8 .8 Rooms
				V	9 .9 or more rooms
D	RGQTYPE	1	14	D	BEDROOMS 1 24
V	0				Number of bedrooms
V	1			V	0 .NA (GQ)
V	2			V	1 .No bedroom
				V	2 .One Bedroom
				V	3 .Two Bedrooms
				V	4 .Three Bedrooms
				V	5 .Four Bedrooms
				V	6 .Five or more bedrooms
D	UNITYTYPE	1	15		
V	0				
V	1				
V	2				
V	4				
V	5				
V	6				
V	7				
D	BLDGTYPE	2	16		
V	00				
V	01				
V	02				
V	03				
V	06				
V	07				
V	09				
V	10				
V	11				
V	12				
V	13				
D	YRMOVED	1	18		
V	0				
V	1				
V	2				

**1990 PUBLIC USE MICRODATA SAMPLES, GUAM DATA DICTIONARY  
HOUSING UNIT RECORD**

D PIPEDWTR 1 25  
Hot or cold piped water in the building  
V 0 .NA (GQ)  
V 1 .Yes, in unit  
V 2 .Yes, in building  
V 3 .No, only cold piped water in unit  
V 4 .No, only cold piped water in building  
V 5 .No, only cold piped water outside building  
V 6 .No piped water

D WATRHEAT 1 26  
Energy used by water heater  
V 0 .NA (No water heater/GQ)  
V 1 .Electricity  
V 2 .Gas  
V 3 .Solar  
V 4 .Other

D BATH 1 27  
Have a bathtub or shower  
V 0 .NA (GQ)  
V 1 .Yes, in unit  
V 2 .Yes, in building  
V 3 .Yes, outside building  
V 4 .No

D FLSHTOIL 1 28  
Have a flush toilet  
V 0 .NA (GQ)  
V 1 .Yes, in unit  
V 2 .Yes, in building  
V 3 .Yes, outside building  
V 4 .No

D TOILET 1 29  
Type of toilet facilities  
V 0 .NA (GQ/has flush toilet)  
V 1 .Outhouse or privy  
V 2 .Other or none

D ELECTRIC 1 30  
Electricity in house/apartment  
V 0 .NA (GQ)  
V 1 .Yes  
V 2 .No

D TELEPHON 1 31  
Telephone in house/apartment  
V 0 .NA (Vacant/GQ)  
V 1 .Yes  
V 2 .No

D RADIO 1 32  
Have a battery operated radio  
V 0 .NA (Vacant/GQ)  
V 1 .Yes  
V 2 .No

D TELEVISN 1 33  
Have a television set  
V 0 .NA (Vacant/GQ)  
V 1 .Yes  
V 2 .No

D AIRCOND 1 34  
Have air conditioning  
V 0 .NA (GQ)  
V 1 .Yes, Central air conditioning system  
V 2 .Yes, one individual room unit  
V 3 .Yes, two or more individual room units  
V 4 .No

D WATER 1 35  
Source of water  
V 0 .NA (GQ)  
V 1 .Public system only  
V 2 .Public system and catchment  
V 4 .An individual well  
V 5 .Catchment, tanks, or drums only  
V 6 .Public standpipe or steel hydrant  
V 7 .Other (such as a spring, river, creek, etc.)

D SEWER 1 36  
Building connected to public water  
V 0 .NA (GQ)  
V 1 .Yes  
V 2 .No, connected to Septic tank or cesspool  
V 3 .No, use other means

D KITCHEN 1 37  
Cooking facilities  
V 0 .NA (GQ)  
V 1 .Inside this building  
V 2 .Outside this building  
V 3 .No cooking facilities

D STOVE 1 38  
Type of cooking facilities  
V 0 .NA (No cooking facilities/GQ)  
V 1 .Electric stove  
V 2 .Kerosene stove  
V 3 .Gas stove  
V 4 .Microwave and non-portable burners  
V 5 .Microwave only  
V 6 .Other (fireplace, hotplate, etc.)

D REFRIG 1 39  
Refrigerator in building  
V 0 .NA (GQ)  
V 1 .Yes, electric  
V 2 .Yes, gas  
V 3 .No refrigerator

D SINK 1 40  
Sink with piped water  
V 0 .NA (GQ)  
V 1 .Yes  
V 2 .No

D AUTOS 1 41  
Motor vehicles used by HH members  
V 0 .NA (Vacant/GQ)  
V 1 .None  
V 2 .One  
V 3 .Two  
V 4 .Three  
V 5 .Four  
V 6 .Five

**1990 PUBLIC USE MICRODATA SAMPLES, GUAM DATA DICTIONARY  
HOUSING UNIT RECORD**

V	7	.Six			D	VALUE	6	59	
V	8	.Seven or more				Property value			
D	CONDO	1	42		V	000000	.NA (GQ/rental unit/vacant/not for sale)		
	Condominium				V	000100	.\$100 or below (bottomcode)		
V	0	.NA (GQ)			V	000101..			
V	1	.Yes			V	499999	.\$101 to \$499,999		
V	2	.No			V	500000	.Topcode		
					V	686667	.\$500,001 or more (median of topcoded values for Guam)		
D	ELECCOST	3	43		D	RTAXES	3	65	
	Cost for electricity (average monthly amount)					Property tax			
V	000	.NA (Vacant/GQ)			V	000	.NA (vacant/GQ/not owned or being bought/not a one-family house/mobile home/condo)		
V	001	.Electricity included in rent/condo fee			V	001	.None		
V	002	.No charge or electricity not used			V	002-699	.Real estate taxes		
V	003-299	.Monthly costs for electricity			V	700	.\$700 or more (topcode)		
V	300	.\$300 or more (topcode)							
D	GASCOST	3	46		D	INSAMT	4	68	
	Cost for gas (average monthly amount)					Insurance payment			
V	000	.NA (Vacant/GQ)			V	0000	.NA (Vacant/GQ/not owned or being bought/no mortgage payment)		
V	001	.Cost of gas included in rent/condo fee			V	0001	.None		
V	002	.No charge or gas not used			V	0002..			
V	003-099	.Monthly costs for gas			V	1999	.Insurance payment (annual) for fire, etc.		
V	100	.\$100 or more (topcode)			V	2000	.\$2,000 or more (topcode)		
D	WATRCOST	2	49		D	MORTGAGE	1	72	
	Cost for water (average monthly amount)					Mortgage on this property			
V	00	.NA (Vacant/GQ)			V	0	.NA (Vacant/GQ)		
V	01	.Cost of water included in rent/condo fee			V	1	.Yes, mortgage, deed of trust, or other debt		
V	02	.No charge			V	2	.Yes, contract to purchase		
V	03-74	.Monthly cost for water			V	3	.None		
V	75	.\$75 or more (topcode)							
D	FUELCOST	2	51		D	MORTGAG3	4	73	
	Cost for fuel (average monthly amount)					Mortgage payment (monthly amount)			
V	00	.NA (Vacant/GQ)			V	0000	.NA (Vacant/GQ/not owned or being bought/no mortgage payment)		
V	01	.Cost of fuel included in rent or condo fee			V	0001	.No regular payment required		
V	02	.No charge or these fuels not used			V	0002..			
V	03-49	.Monthly cost for fuel			V	1999	.Monthly mortgage payment		
V	50	.\$50 or more (topcode)			V	2000	.\$2,000 or more (topcode)		
D	OWNHOME	1	53		D	TAXINCL	1	77	
	Home ownership status					Mortgage include real estate taxes			
V	0	.NA (Vacant/GQ)			V	0	.NA (Vacant/GQ/not owned or being bought/no mortgage payment)		
V	1	.Owned with a mortgage or loan			V	1	.Yes		
V	2	.Owned without a mortgage			V	2	.No		
V	3	.Rented for cash rent							
V	4	.Occupied without payment of cash rent			D	INSINCL	1	78	
D	RRENT	4	54			Mortgage include insurances			
	Monthly rent				V	0	.NA (Vacant/GQ/not owned or being bought/no mortgage payment)		
V	0000	.NA (No cash rent/vacant/GQ)			V	1	.Yes		
V	0001..				V	2	.No		
V	0999	.Monthly rent \$1 to \$999			D	MORT2AMT	3	79	
V	1000	.Topcode				Second mortgage (monthly amount)			
V	1388	.Rent \$1001 or more (median of topcoded values for Guam)			V	000	.NA (Vacant/GQ/no second mortgage)		
D	COMMUSE	1	58		V	001	.No regular payment required		
	Business/Office in a one-family house				V	002..			
V	0	.NA (GQ/vacant/not a one-family house)			V	699	.Monthly payment on second mortgage, etc.		
V	1	.Yes			V	700	.\$700 or more (topcode)		
V	2	.No							

**1990 PUBLIC USE MICRODATA SAMPLES, GUAM DATA DICTIONARY  
HOUSING UNIT RECORD**

D	CONDOFEE	3	82	D	R75OVER	1	95
	Condo Fee (monthly amount)				No. of related persons > = 75 years old		
V	000	.NA (vacant/GQ/not a condo/no condo fee)		V	0	.NA (Vacant/GQ/no related person 75 or older)	
V	001..			V	1..3	.Number of related persons 75 years or older	
	249	.Monthly condominium fee					
V	250	.\$250 or more (topcode)		D	RRELPER	2	96
					Number of related persons in HH		
D	VACANCY1	1	85	V	00	.NA (Vacant/GQ)	
	Vacancy status			V	01..21	.Number of related persons in household	
V	0	.NA (Not vacant/GQ)					
V	1	.For rent		D	RWORKFAM	1	98
V	2	.For sale			Workers in family		
V	3	.Rented or sold, not occupied		V	0	.NA (vacant/GQ/non-family household)	
V	4	.For seasonal/recreational use		V	1	.No workers in family	
V	5	.For migrant workers		V	2	.One worker in family	
V	6	.Other vacant		V	3	.Two workers in family (not husband-wife)	
				V	4	.Two workers (husband and wife)	
D	VACANCY2	1	86	V	5	.Three or more workers in family (excluding husband and wife)	
	Unit Boarded up			V	6	.Three or more workers including husband and wife	
V	0	.NA (Not vacant/GQ)					
V	1	.Yes		D	RHHINC	6	99
V	2	.No			Household income (in dollars)		
D	VACANCY3	1	87	V	000000	.NA (GQ/vacant/no income)	
	Months vacant			V	000001..		
V	0	.NA (Not vacant/GQ)		V	290000	.Household income in dollars	
V	1	.Less than 1		V	290001+	.Guam medians included	
V	2	.1 upto 2					
V	3	.2 upto 6		D	RMILDEP	1	105
V	4	.6 upto 12			Military Dependency		
V	5	.12 upto 24		V	0	.NA (Vacant/GQ)	
V	6	.24 or more		V	1	.All persons in household in Armed Forces	
				V	2	.Some persons in household in Armed Forces	
D	RFAMTYPE	1	88	V	3	.None	
	Household/family type			D	RKITCHEN	1	106
V	0	.NA (Vacant/GQ)			Kitchen facilities		
V	1	.Married		V	0	.NA (GQ)	
V	2	.Male householder		V	1	.Complete kitchen	
V	3	.Female householder		V	2	.No kitchen	
				V	3	.Some kitchen facilities	
D	RRLCHLD1	1	89				
	No. of related children < age 6			D	RPLUMBING	1	107
V	0	.NA (Vacant/GQ/no children < age 6)			Plumbing facilities		
V	1..7	.Number of related children in HH < age 6		V	0	.NA (GQ)	
				V	1	.Complete plumbing in unit	
D	RRLCHLD2	1	90	V	2	.Complete plumbing in building	
	No. of related children 5 - 17 years old			V	3	.Some plumbing in unit or building	
V	0	.NA (Vacant/GQ/no children 5 - 17 years old)		V	4	.No plumbing	
V	1..9	.Number of related children 5 - 17 years old					
				D	RFAMINC	6	108
D	RRLCHLD3	1	91		Family income		
	No. of related children 6 - 17 years old			V	000000	.NA (GQ/vacant/no income)	
V	0	.NA (Vacant/GQ/no children 6 - 17 years old)		V	000001..		
V	1..9	.Number of related children 6 - 17 years old		V	210600	.Family income in dollars	
				V	210601+	.Guam medians included	
D	RRLCHLD4	2	92				
	No. of related children < 18 years old			D	ROWNOCCU	1	114
V	00	.NA (Vacant/GQ/no children < 18 years old)			Occupied housing unit		
V	01..12	.Number of related children < 18 years old		V	0	.NA (Not a specified owner/GQ)	
				V	1	.Specified owner occupied	
D	R65OVER	1	94	V	2	.Vacant for sale (specified)	
	No. of related persons > = 65 years old						
V	0	.NA (Vacant/GQ/no related person 65 or older)					
V	1..3	.Number of related persons 65 years or older					

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D	ROWNCST	4	115	D	AHOTWTR	1	135
	Selected monthly owner costs				Hot water allocation		
V	0000	.NA (Vacant/renter/GQ/not a specified owner)		V	0	.No	
V	0001..			V	1	.Yes	
	2626	.Selected monthly owner costs					
D	RSMOCPI	2	119	D	AWTRHTR	1	136
	Monthly owner costs (percent of HH income 1989)				Type of water heater allocation		
V	00	.NA (Vacant/renter/GQ/not a specified owner)		V	0	.No	
V	01..99	.1 to 99 percent of HH income in 1989		V	1	.Yes	
D	RGRENT	4	121	D	ABATH	1	137
	Gross rent				Bath/shower allocation		
V	0000	.NA (vacant/GQ/not rented for cash rent)		V	0	.No	
V	0001..			V	1	.Yes	
	1738	.Gross rent in dollars					
D	RGRAPI	2	125	D	ATOILET	1	138
	Gross rent as percent of HH income				Flush toilet in unit/building allocation		
V	00	.NA (Vacant/GQ/not rented for cash rent/owner occupied/no household income)		V	0	.No	
V	01..99	.1 to 99 percent of HH income in 1989		V	1	.Yes	
D	ABLDTYPE	1	127	D	ATOLTYPE	1	139
	Type of building allocation				Type of toilet allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AYRMOVED	1	128	D	AELECT	1	140
	When moved into this house allocation				Electricity in house/apartment allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AWALLMAT	1	129	D	APHONE	1	141
	Wall material allocation				Telephone in house/apartment allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AROOFMAT	1	130	D	ARADIO	1	142
	Roof material allocation				Battery operated radio allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AFNDMAT	1	131	D	ATELEVSN	1	143
	Foundation material allocation				Television set allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AYRBUILT	1	132	D	AAIRCOND	1	144
	When structure first built allocation				Air conditioning allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AROOMS	1	133	D	AWTRSRC	1	145
	Number of rooms allocation				Water source allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	ABEDROOM	1	134	D	ASEWER	1	146
	Number of bedrooms allocation				Public sewer allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
				D	AKITCHEN	1	147
					Cooking facilities in/outside building allocation		
				V	0	.No	
				V	1	.Yes	

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D	AKITFAC	1	148	D	ATENURE	1	161
	Type of cooking facilities allocation				Tenure allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AREFRIG	1	149	D	ARENT	1	162
	Refrigerator in building allocation				Monthly rent allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	ASINK	1	150	D	ACOMMUSE	1	163
	Sink with piped water in building allocation				Business in one-family house allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AVEHICLE	1	151	D	AVALUE	1	164
	Number of motor vehicles allocation				Property value allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	ACONDO	1	152	D	APROPTAX	1	165
	Condominium status allocation				Taxes on property allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	ALEECOST	1	153	D	APROPINS	1	166
	Electricity (monthly cost) allocation				Insurance on property allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	ALEECINC	1	154	D	AMORTG	1	167
	Rent/condo fee include electricity allocation				Mortgage status allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AGASCOST	1	155	D	AMORTAMT	1	168
	Gas (monthly cost) allocation				Mortgage amount allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AGASINC	1	156	D	ATAXINCL	1	169
	Rent/condo fee include gas allocation				Mortgage include taxes allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AWTRCOST	1	157	D	AINSINCL	1	170
	Water (monthly cost) allocation				Mortgage include insurance allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AWTRINC	1	158	D	AMORZAMT	1	171
	Rent/condo fee include water allocation				Second mortgage (monthly) allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AFUELCST	1	159	D	ACONDFEE	1	172
	Fuel (monthly cost) allocation				Monthly condominium fee allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AFUELINC	1	160	D	AVACSTAT	1	173
	Rent/condo fee include fuel allocation				Vacancy status allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	

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D	AMONVAC	1	174
	Months vacant allocation		
V	0	.No	
V	1	.Yes	
D	FILLER	43	175

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DATA	SIZE	BEGIN			
			V	28	.All other single ethnic types
			V	61	.Chamorro and other (Not Asian)
D	RECTYPE	1	V	62	.Asian and other (Not Chamorro)
	Record Type		V	63	.Chamorro and Asian
V	P	.Person Record	V	64	.All other multiple ethnic types
			V	99	.Unclassified
D	SERIALNO	4			
	Housing unit/GQ person serial number		D	ANCSTRY1	3
	0001..	.Serial number for persons in HH/GQ person		Ancestry - First entry (see Appendixes C and I)	16
	4395	.number	V	001	.European
			V	200	.Hispanic (other)
D	PWGT	2	V	210	.Mexican
	Person's weight		V	300	.Central & South America, West Indies (Except
V	10	.Person's weight			.Hispanic)
			V	400	.African & Southwest Asian
D	PSEQNO	2	V	600	.Asian (Other)
	Person sequence number within HH		V	706	.Chinese
V	01..21	.Sequence No. of persons within HH	V	720	.Filipino
			V	740	.Japanese
D	RELAT1	3	V	750	.Korean
	Relationship to householder code		V	785	.Vietnamese
V	001	.Institutionalized person (GQ)	V	800	.Pacific (Australia, New Zealand, etc.)
V	002	.Non-institutionalized person (GQ)	V	811	.Hawaiian
V	010	.Householder	V	814	.Samoan
V	020	.Spouse	V	821	.Chamorro
V	030	.Child	V	824	.Palauan
V	040	.Stepchild	V	827	.Pohnpeian
V	050	.Sibling	V	828	.Chuukese
V	060	.Parent	V	829	.Yapese
V	070	.Grandchild	V	850	.Pacific Islander
V	080	.Relative, not specified	V	900	.Black
V	081	.Children-in-law	V	913	.North American (Other)
V	082	.Parent-in-law	V	924	.White
V	083	.Sibling-in-law			
V	084	.Nephew/niece	D	ANCSTRY2	3
V	085	.Grandparent		Ancestry - Second entry (See Appendixes C and I)	19
V	086	.Uncle/aunt	V	UUU	.NA (Second ancestry not given)
V	087	.Cousin	V	001	.European
V	088	.Other, relative	V	200	.Hispanic (Other)
V	090	.Roomer	V	210	.Mexican
V	100	.Roommate	V	400	.African & Southwest Asian
V	110	.Unmarried, partner	V	706	.Chinese
V	120	.Non-related, other	V	720	.Filipino
			V	740	.Japanese
D	SEX	1	V	750	.Korean
	Sex		V	785	.Vietnamese
V	1	.Male	V	800	.Pacific (Australia, New Zealand, etc.)
V	2	.Female	V	811	.Hawaiian
			V	814	.Samoan
D	RETHNIC	2	V	821	.Chamorro
	Ethnicity		V	824	.Palauan
V	11	.Chamorro	V	827	.Pohnpeian
V	13	.Palauan	V	828	.Chuukese
V	14	.Chuukese	V	829	.Yapese
V	17	.Pohnpeian	V	850	.Pacific Islander
V	18	.Yapese	V	900	.Black
V	19	.Other Pacific	V	913	.North American (Other)
V	21	.Chinese	V	924	.White
V	22	.Filipino			
V	23	.Japanese	D	AGE	2
V	24	.Korcon		Age	22
V	25	.Other Asian	V	00	.Less than 1 year old
V	26	.White	V	01..79	.Age in years
V	27	.Black	V	80	.80 or more years old (topcode)

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D	MARITAL	1	24	V	07	.Seventh grade
	Marital status			V	08	.Eighth grade
V	1	.Now married		V	09	.Ninth grade
V	2	.Widowed		V	10	.Tenth grade
V	3	.Divorced		V	11	.Eleventh grade
V	4	.Separated		V	12	.Twelvth grade, no diploma
V	5	.Never married		V	13	.High-school graduate/diploma/GED
				V	14	.Some college but no degree
D	RPOB	3	25	V	15	.Associate degree in college/occup. prog.
	Place of birth (see Appendixes C and I)			V	16	.Associate degree in college/academic prog.
V	006	.California		V	17	.Bachelor's degree
V	015	.Hawaii		V	18	.Master's degree
V	057	.United States--Other		V	19	.Professional degree (MD, LLB, etc.)
V	066	.Guam		V	20	.Doctorate degree (Ph.D., Ed.D., etc)
V	069	.CNMI		V	30	.No school completed
V	072	.Puerto Rico		V	31	.Pre-kindergarten
V	110	.Germany		V	32	.Kindergarten
V	139	.England				
V	207	.China		D	VOCEDUC	1 36
V	209	.Hong Kong			Vocational training received	
V	215	.Japan		V	1	.No
V	217	.Korea		V	2	.Yes, in Guam
V	231	.Philippines		V	3	.Yes, not in Guam
V	238	.Taiwan				
V	239	.Thailand		D	POBFATHER	3 37
V	242	.Vietnam			Father's place of birth (see Appendixes C and I)	
V	301	.Canada		V	006	.California
V	650	.Palau		V	015	.Hawaii
V	710	.Kosrae-Federated States of Micronesia		V	057	.United States--other
V	720	.Pohnpei-Federated States of Micronesia		V	060	.American Samoa
V	730	.Yap-Federated States of Micronesia		V	066	.Guam
V	750	.Chuuk-Federated States of Micronesia		V	069	.CNMI
V	800	.All other countries		V	072	.Puerto Rico
				V	110	.Germany
D	CITIZEN	1	28	V	139	.England
	Citizenship			V	207	.China
V	1	.Born in this area		V	210	.India
V	2	.Born in the US/Other US Territory		V	215	.Japan
V	3	.Born elsewhere of US Parent(s)		V	217	.Korea
V	4	.Naturalized citizen		V	224	.Malaysia
V	5	.Not a US Citizen/permanent resident		V	231	.Philippines
V	6	.Not a US Citizen/temporary residence		V	238	.Taiwan
				V	239	.Thailand
D	IMMIGR	4	29	V	242	.Vietnam
	Year of entry in Guam			V	301	.Canada
V	0000	.NA (Born in the area)		V	315	.Mexico
V	1960	.Entered in 1960 or before (bottomcode)		V	650	.Palau
V	1961..1990	.Year of entry in Guam		V	710	.Kosrae-Federated States of Micronesia
				V	720	.Pohnpei-Federated States of Micronesia
D	SCHOOL	1	33	V	730	.Yap-Federated States of Micronesia
	School enrollment			V	750	.Chuuk-Federated States of Micronesia
V	0	.NA (Under 3 years old)		V	800	.All other countries
V	1	.No, has not attended since February 1, 1990				
V	2	.Yes, public school/college		D	POBMOTHER	3 40
V	3	.Yes, private school/college			Mother's place of birth (see Appendixes C and I)	
D	YEARSCH	2	34	V	006	.California
	Educational attainment			V	015	.Hawaii
V	00	.NA (Under 3 years old)		V	057	.United States--other
V	01	.First grade		V	060	.American Samoa
V	02	.Second grade		V	066	.Guam
V	03	.Third grade		V	069	.CNMI
V	04	.Fourth grade		V	072	.Puerto Rico
V	05	.Fifth grade		V	110	.Germany
V	06	.Sixth grade		V	139	.England
				V	207	.China

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V 210 .India  
V 215 .Japan  
V 217 .Korea  
V 224 .Malaysia  
V 231 .Philippines  
V 238 .Taiwan  
V 239 .Thailand  
V 242 .Vietnam  
V 301 .Canada  
V 315 .Mexico  
V 650 .Palau  
V 710 .Kosrae-Federated States of Micronesia  
V 720 .Pohnpei-Federated States of Micronesia  
V 730 .Yap-Federated States of Micronesia  
V 750 .Chuuk-Federated States of Micronesia  
V 800 .All other countries

D MILDEPEN 1 43  
Military dependency  
V 1 .Yes, dependent of active duty AF member  
V 2 .Yes, dependent of retired member of the AF  
V 3 .No

D MOBILITY 1 44  
Mobility status (lived here on April 1, 1985)  
V 1 .Born after April 1, 1985  
V 2 .Yes (Non-movers)  
V 3 .No (movers)

D R5YRSRES 1 45  
Residence 5 years ago  
V 0 .NA (Less than 5 years old)  
V 1 .Lived in the same house  
V 2 .Different house, same district  
V 3 .Different house, different district  
V 4 .Outside Guam

D MIGISL 3 46  
Migration--island/state/country (see Appendixes C and I)  
V 000 .NA (Nonmovers/less than 5 years old)  
V 006 .California  
V 015 .Hawaii  
V 057 .United States--other  
V 066 .Guam  
V 069 .CNMI  
V 110 .Germany  
V 120 .Italy  
V 134 .Spain  
V 139 .England  
V 207 .China  
V 210 .India  
V 215 .Japan  
V 217 .Korea  
V 231 .Philippines  
V 238 .Taiwan  
V 650 .Palau  
V 720 .Pohnpei-Federated States of Micronesia  
V 730 .Yap-Federated States of Micronesia  
V 750 .Chuuk-Federated States of Micronesia  
V 800 .All other countries

D LITERACY 1 49  
Literacy--know how to read/write  
V 0 .NA (Less than 5 years old)  
V 1 .Yes  
V 2 .No

D LANG1 1 50  
Language other than English at home  
V 0 .NA (Less than 5 years old)  
V 1 .Yes, speaks another language  
V 2 .No, speaks only English

D LANG2 3 51  
What language other than English (see Appendixes C and I)  
V 000 .NA (Less than 5 years old/speaks only English)  
V 601 .European--other  
V 625 .Spanish  
V 656 .Asian--other  
V 708 .Chinese  
V 723 .Japanese  
V 724 .Korean  
V 728 .Vietnamese  
V 742 .Filipino  
V 750 .Micronesia--other  
V 752 .Chamorro  
V 759 .Palau  
V 760 .Ponapean  
V 761 .Chuukese  
V 764 .Yapese  
V 767 .Samoan  
V 776 .Hawaiian  
V 800 .All other languages

D FRQNTLAN 1 54  
Is this language (LANG2) spoken more frequently than English?  
V 0 .NA (< 5 years old/speaks only English)  
V 1 .Yes, more frequently than English  
V 2 .Both equally often  
V 3 .No, less frequently than English  
V 4 .Does not speak English

D MILITARY 1 55  
Military service  
V 0 .NA (< 16 years old)  
V 1 .Yes, now on active duty  
V 2 .Yes, on active duty in past, but not now  
V 3 .No service

D MILRESV 1 56  
Military Reserves/National Guard  
V 0 .NA (< 16 years old/active duty now or past)  
V 1 .Yes, now in Reserve or National Guard  
V 2 .Yes, Reserve/National Guard in past, not now  
V 3 .No

D RVETSERV 2 57  
Veterans' period of service  
V 00 .NA (Less than 16 years old/no active duty/did not serve)  
V 01 .September 1980 or later only  
V 02 .May 1975-August 1980 only  
V 03 .May 1975-August and September 1980 or later only  
V 04 .Vietnam Era only  
V 05 .Vietnam Era and Korean Conflict  
V 06 .Vietnam Era, Korean Conflict, and World War II  
V 07 .February 1955-July 1964 only

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V	08	.Korean Conflict only			D	DISABL1	1	69
V	09	.Korean Conflict and World War II				Work limitation status		
V	10	.World War II only			V	0	.NA (Less than 16 years old)	
V	11	.Other service			V	1	.Yes, limited in kind or amount of work	
					V	2	.No, not limited	
D	SEPT80	1	59		D	DISABL2	1	70
	Served September 1980 or later					Work prevented status		
V	0	.NA (< 16 years old/did not serve this period)			V	0	.NA (Less than 16 years old)	
V	1	.Yes			V	1	.Yes, prevented from work	
					V	2	.No, not prevented from work	
D	MAY75	1	60		D	MOBILLIM	1	71
	Served May 1975 to August 1980					Mobility limitation		
V	0	.NA (< 16 years old/did not serve this period)			V	0	.NA (< 16 years old/institutionalized person)	
V	1	.Yes			V	1	.Yes, has a mobility limitation	
					V	2	.No, does not have a limitation	
D	VIETNAM	1	61		D	PERSCARE	1	72
	Served Vietnam ERA (August 1964 - April 1975)					Personal care limitation		
V	0	.NA (< 16 years old/did not serve this period)			V	0	.NA (< 16 years old/institutionalized person)	
V	1	.Yes			V	1	.Yes, has a personal care limitation	
					V	2	.No, does not have a limitation	
D	FEB55	1	62		D	FERTIL	2	73
	Served February 1955 to July 1964					Number of children ever born		
V	0	.NA (< 16 years old/did not serve this period)			V	00	.NA (Less than 16 years old/male)	
V	1	.Yes			V	01	.Woman 16 or older with no children	
					V	02	.Woman 16 or older with one child	
D	KOREAN	1	63		V	03	.Woman 16 or older with two children	
	Served Korean Conflict (June 1950 - January 1955)				V	04	.Woman 16 or older with three children	
V	0	.NA (< 16 years old/did not serve this period)			V	05	.Woman 16 or older with four children	
V	1	.Yes			V	06	.Woman 16 or older with five children	
					V	07	.Woman 16 or older with six children	
D	WWII	1	64		V	08	.Woman 16 or older with seven children	
	Served World War II (September 1940 - July 1947)				V	09	.Woman 16 or older with eight children	
V	0	.NA (< 16 years old/did not serve this period)			V	10	.Woman 16 or older with nine children	
V	1	.Yes			V	11	.Woman 16 or older with ten children	
					V	12	.Woman 16 or older with eleven children	
D	OTHRSERV	1	65		V	13	.Woman 16 or older with twelve children	
	Served any other time				V	14	.Woman 16 or older with thirteen children	
V	0	.NA (< 16 years old/did not serve this period)			V	15	.Woman 16 or older with fourteen children	
V	1	.Yes			V	16	.Woman 16 or older with fifteen or more children	
					D	ROWNCHIL1	1	75
D	YRSSERV	2	66			Number of own children < 6 years old		
	Years of active duty military service				V	0..9	.Number of own children < 6 years old	
V	00	.NA (Less than 16 years old/no active duty/did not serve)			D	ROWNCHL2	1	76
V	01	.1 year or less				Number of own children age 6-17		
V	02..29	.2 to 29 years of service			V	0..9	.Number of own children 6 to 7 years old	
V	30	.30 or more years of service			D	ROWNCHL3	1	77
						Number of own children under 18 years old		
D	MILBENE	1	68		V	0..9	.Number of own children under 18 years old	
	Receive military benefits/VA compensation				D	RESR	1	78
V	0	.NA (Less than 16 years old)				Employment status recode		
V	1	.Yes			V	0	.NA (< 16 years old)	
V	2	.No			V	1	.Civilian employed, at work	
					V	2	.Civilian employed, not at work	
					V	3	.Unemployed	
					V	4	.Armed Forces, at work	

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V	5	.Armed Forces, not at work	V	7	.Seven to nine people		
V	6	.Not in labor force	V	8	.Ten or more people		
D	WORKLWK	1	79	D	DEPART	4	87
		Worked last week				Time of departure for work (hour and minute)	
V	0	.NA (< 16 years old)	V	0000	.NA (< 16 years old/not in labor force/ .unemployed/employed but not at work/Armed .Forces not at work/worked at home)		
V	1	.Yes, worked full/part time, no subsistence activity	V	0001..			
V	2	.Yes, worked full/part time, with subsistence activity	V	2400	.Time of departure for work (hour and minute)		
V	3	.Yes, did subsistence activity only	D	TRAVTIME	2	91	
V	4	.No, did not work			Travel time to work--minutes		
D	HOURS	2	80	V	00	.NA (< 16 years old/not in labor force/ .unemployed/employed but not at work/Armed .Forces not at work/worked at home)	
		Hours worked last week		V	01..98	.1 to 98 minutes	
V	00	.NA (< 16 years old/not at work/unemployed/ .not in labor force)	V	99	.99 minutes or more		
V	01..98	.1 to 98 hours worked last week	D	TMPABSNT	1	93	
V	99	.Worked 99 hours or more last week			Temporary absence from work last week		
D	POWISL	3	82	V	0	.NA (< 16 years old/at work/did not .report Q. 25)	
		Island/state/foreign country where worked last week (see Appendixes C and I)	V	1	.Yes, on layoff		
V	000	.NA (< 16 years old/not in labor force/ .unemployed/employed but not at work/Armed .Forces not at work)	V	2	.Yes, on vacation/temporary illness/labor .dispute		
V	006	.California	V	3	.No		
V	015	.Hawaii	D	LOOKING	1	94	
V	057	.United States--other			Looking for work		
V	066	.Guam	V	0	.NA (< 16 years old/at work/did not .report Q. 26A)		
V	070	.Saipan	V	1	.Yes		
V	215	.Japan	V	2	.No		
V	217	.Korea	D	AVAIL	1	95	
V	231	.Philippines			Available for work		
V	554	.At sea	V	0	.NA (< 16 years old/at work/not looking for .work/did not report Q. 26A/did not report .Q. 26B)		
V	555	.Abroad	V	1	.No, already has a job		
D	MEANS	1	85	V	2	.No, temporarily ill	
		Principal means of transportation to work	V	3	.No, other reasons (in school, etc.)		
V	0	.NA (< 16 years old/not in labor force/ .unemployed/employed but not at work/Armed .Forces not at work)	V	4	.Yes, could have taken a job		
V	1	.Car, truck, or private van/bus	D	YEARWRK	1	96	
V	2	.Public van/bus			Year last worked		
V	3	.Boat	V	0	.N/A (less than 16 years old)		
V	4	.Taxi cab	V	1	.1990		
V	5	.Motocycle	V	2	.1989		
V	6	.Bicycle	V	3	.1988		
V	7	.Walked	V	4	.1985 to 1987		
V	8	.Worked at home	V	5	.1980 to 1984		
V	9	.Other method of transportation	V	6	.1979 or earlier		
D	RIDERS	1	86	V	7	.Never worked; or did subsistence only	
		Vehicle occupancy	D	RINDSTRY	3	97	
V	0	.NA (< 16 years old/not in labor force/ .unemployed/employed but not at work/Armed .Forces not at work/did not use car, truck, .or private van/bus)			Industry		
V	1	.Drove alone	V	000	.NA (less than 16 years old/unemployed who .never worked/not in labor force who last .worked prior to 1985)		
V	2	.Two people	V	010..			
V	3	.Three people	V	999	.specific industry codes (see Appendixes C .and I)		
V	4	.Four people					
V	5	.Five people					
V	6	.Six people					

**1990 PUBLIC USE MICRODATA SAMPLES, GUAM DATA DICTIONARY  
PERSON RECORD**

D	OCCUP	3	100	V	030000	.Topcode	
V	000	.NA (less than 16 years old/unemployed who never worked/not in labor force who last worked prior to 1985)	V	049714	.Income \$30,001 or more (median of topcoded values for Guam)		
V	003..	.specific occupation codes (see Appendixes C and I)	D	INCOME3	6	120	
V	999		V	000000	.Interest/dividend/rental income		
D	CLASS	1	103	V	-00250	.NA (Less than 15 years old/none)	
V	0	.NA (less than 16 years old/unemployed who never worked/not in labor force who last worked prior to 1985)	V	-00001..	.Loss of \$250 or more		
V	1	.Employee of a private for profit company	V	-00249	.Loss of \$1 to \$249		
V	2	.Employee of a private not-for-profit organization	V	-00001..			
V	3	.Local/territorial government employee	V	014999	.Income \$1 to \$14,999		
V	4	.Federal government employee	V	015000	.Topcode		
V	5	.Self-employed in own not incorporated business	V	028333	.Income \$15,001 or more (median of topcoded values for Guam)		
V	6	.Self-employed in own incorporated business	D	INCOME4	5	126	
V	7	.Working without pay in family business	V	000000	.Social Security/Railroad Retirement Income		
V	8	.Unemployed, last worked prior to 1985	V	00001..	.NA (Less than 15 years old/none)		
D	WORK89	1	104	V	07499	.Income \$1 to \$7,499	
V	0	.Worked last year (1989)	V	07500	.Topcode		
V	1	.NA (< 16 years old)	V	10733	.Income \$7,501 or more (median of topcoded values for Guam)		
V	2	.Yes	D	INCOME5	5	131	
V		.No	V	000000	.SSI/AFDC/Other public assistance income		
D	WEEK89	2	105	V	00001..	.NA (Less than 15 years old/none)	
V	00	.NA (less than 16 years old/did not work in 1989)	V	07499	.Income \$1 to \$7,499		
V	01..		V	07500	.Topcode		
V	52	.Worked 1 to 52 weeks last year	V	10467	.Income \$7,501 or more (median of topcoded values for Guam)		
D	HOURL89	2	107	D	INCOME6	5	136
V	00	.Usual hours worked per week last year (1989)	V	000000	.Pension income		
V	01..		V	00001..	.NA (Less than 15 years old/none)		
V	98	.Worked 1 To 98 hours per week in 1989	V	19999	.Income \$1 to \$19,999		
V	99	.Worked 99 hours or more	V	20000	.Topcode		
D	INCOME1	5	109	V	26429	.Income \$20,001 or more (median of topcoded values for Guam)	
V	00000	.Wages earned in 1989	D	INCOME7	4	141	
V	00001..	.NA (Less than 15 years old/had no earnings)	V	000000	.Remittance income		
V	49999	.Total wages earned in dollars	V	0001..	.NA (Less than 15 years old/none)		
V	50000	.Topcode	V	2499	.Income \$1 to \$2,499		
V	61600	.Income \$50,001 or more (median of topcoded values for Guam)	V	2500	.Topcode		
D	INCOME2	6	114	V	3900	.Income \$2,501 or more (median of topcoded values for Guam)	
V	000000	.Farm/non-farm business income	D	INCOME8	4	145	
V	-00250	.NA (Less than 15 years old/had no earnings)	V	000000	.VA/child support/alimony income		
V	-00001..	.Loss of \$250 or more	V	00001..	.NA (Less than 15 years old/none)		
V	-00249	.Loss of \$1 to \$249	V	4999	.Income \$1 to \$4,999		
V	000001..		V	5000	.Topcode		
V	029999	.Income \$1 to \$29,999	V	8300	.Income \$5,001 or more (median of topcoded values for Guam)		

**1990 PUBLIC USE MICRODATA SAMPLES, GUAM DATA DICTIONARY  
PERSON RECORD**

D	INCOME9	6	149	D	AMARITAL	1	164
	Total income in 1989				Marital status allocation		
V	000000	.NA (Less than 15 years old/none)		V	0	.No	
V	000001..			V	1	.Yes	
V	120000	.Total persons income in dollars		D	APOB	1	165
V	120001+	.Guam medians included			Place of birth allocation		
D	POVERTY	1	155.	V	0	.No	
	Poverty level status			V	1	.Yes	
V	0	.NA (Less than 15 years old/GQ)		D	ACITIZEN	1	166
V	1	.1-49 percent of poverty level index			Citizenship allocation		
V	2	.50-99 percent of poverty level index		V	0	.No	
V	3	.100-124 percent of poverty level index		V	1	.Yes	
V	4	.125-184 percent of poverty level index		D	AIMMIGR	1	167
V	5	.185 percent or more of poverty level index			Year of entry in Guam allocation		
D	RESP	1	156	V	0	.No	
	Parent's employment status			V	1	.Yes	
V	0	.NA (18 years or older/not own child in a family-subfamily)		D	ASCHOOL	1	168
V	1	.None or 1 of 2 parents in labor force			School enrollment allocation		
V	2	.2 of 2 parents in labor force		V	0	.No	
V	3	.None of 1 parent in labor force		V	1	.Yes	
V	4	.Single father in labor force		D	AYEARSCH	1	169
V	5	.Single mother in labor force			Education attainment allocation		
D	RSUBFAM	1	157	V	0	.No	
	Subfamily sequence number			V	1	.Yes	
V	0	.Not in subfamily		D	AVOCEDOC	1	170
V	1..4	.Subfamily sequence number			Vocational training allocation		
D	RSUBFMRL	1	158	V	0	.No	
	Subfamily relationships			V	1	.Yes	
V	0	.Not in subfamily		D	APOBFATH	1	171
V	1	.Husband or wife in subfamily			Father's place of birth allocation		
V	2	.Single parent in subfamily		V	0	.No	
V	3	.Child in subfamily		V	1	.Yes	
D	ARELATN	1	159	D	APOBMOTH	1	172
	Detailed relationship allocation				Mother's place of birth allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	ASEX	1	160	D	AMILDEP	1	173
	Sex allocation				Military dependency allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AANCEST1	1	161	D	AMOBILIT	1	174
	Ancestry--first entry allocation				Mobility status allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AANCEST2	1	162	D	AMIGISL	1	175
	Ancestry--second entry allocation				Migration--island/state/country allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AAGE	1	163	D	ALITRCY	1	176
	Age allocation				Literacy allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	

1990 PUBLIC USE MICRODATA SAMPLES, GUAM DATA DICTIONARY  
PERSON RECORD

D ALANG1 1 177  
Language other than English allocation  
V 0 .No  
V 1 .Yes

D ALANG2 1 178  
What language other than English allocation  
V 0 .No  
V 1 .Yes

D AFRQLAN 1 179  
Language spoken more frequently at home allocation  
V 0 .No  
V 1 .Yes

D AMILITRY 1 180  
Military service allocation  
V 0 .No  
V 1 .Yes

D AMILRES 1 181  
Military reserve/National Guard allocation  
V 0 .No  
V 1 .Yes

D ASEPT80 1 182  
Served September 1980 or later allocation  
V 0 .No  
V 1 .Yes

D AMAY75 1 183  
Served May 1975 to August 1980 allocation  
V 0 .No  
V 1 .Yes

D AVIETNAM 1 184  
Served Vietnam Era allocation  
V 0 .No  
V 1 .Yes

D AFEBS5 1 185  
Served February 1955 to July 1964 allocation  
V 0 .No  
V 1 .Yes

D AKOREAN 1 186  
Served Korean Conflict allocation  
V 0 .No  
V 1 .Yes

D AWWII 1 187  
Served World War II allocation  
V 0 .No  
V 1 .Yes

D AOTHER 1 188  
Served any other time allocation  
V 0 .No  
V 1 .Yes

D AYRSSERV 1 189  
Years of active duty military service allocation  
V 0 .No  
V 1 .Yes

D AMILBENE 1 190  
Received military disability/survivor benefits allocation  
V 0 .No  
V 1 .Yes

D ADISAB1 1 191  
Work limitation status allocation  
V 0 .No  
V 1 .Yes

D ADISAB2 1 192  
Work prevention status allocation  
V 0 .No  
V 1 .Yes

D AMOBLMT 1 193  
Mobility limitation allocation  
V 0 .No  
V 1 .Yes

D APERSCAR 1 194  
Personal care limitation allocation  
V 0 .No  
V 1 .Yes

D AFERTIL 1 195  
Number of children ever born allocation  
V 0 .No  
V 1 .Yes

D AHOURL 1 196  
Hours worked last week allocation  
V 0 .No  
V 1 .Yes

D AWRKISL 1 197  
Island/state/country where worked last week allocation  
V 0 .No  
V 1 .Yes

D AMEANS 1 198  
Principal transportation to work allocation  
V 0 .No  
V 1 .Yes

D ARIDERS 1 199  
Vehicle occupancy allocation  
V 0 .No  
V 1 .Yes

D ADEPART 1 200  
Time of departure for work allocation  
V 0 .No  
V 1 .Yes

D ATRVTIME 1 201  
Travel time to work allocation  
V 0 .No  
V 1 .Yes

D AYRWORK 1 202  
Year last worked allocation  
V 0 .No  
V 1 .Yes

1990 PUBLIC USE MICRODATA SAMPLES, GUAM DATA DICTIONARY  
PERSON RECORD

D	AINDSTRY	1	203	D	AVETINC	1	216
	Industry code allocation				Verteran benefits income allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	AOCCUP	1	204	D	ATOTINC	1	217
	Occupation code allocation				Total income in 1989 allocation		
V	0	.No		V	0	.No	
V	1	.Yes		V	1	.Yes	
D	ACCLASS	1	205				
	Class of worker allocation						
V	0	.No					
V	1	.Yes					
D	AWORK89	1	206				
	Worked last year allocation						
V	0	.No					
V	1	.Yes					
D	AWEEK89	1	207				
	Weeks worked last year allocation						
V	0	.No					
V	1	.Yes					
D	AHOUR89	1	208				
	Hours worked per week last year allocation						
V	0	.No					
V	1	.Yes					
D	AWAGE89	1	209				
	Earn any wages in 1989 allocation						
V	0	.No					
V	1	.Yes					
D	ANETINC	1	210				
	Net income in 1989 allocation						
V	0	.No					
V	1	.Yes					
D	AINCINC	1	211				
	Interest income allocation						
V	0	.No					
V	1	.Yes					
D	ASSINC	1	212				
	Social Security income allocation						
V	0	.No					
V	1	.Yes					
D	ASSIINC	1	213				
	SSI/AFDC/Public assistance income allocation						
V	0	.No					
V	1	.Yes					
D	APENSINC	1	214				
	Pension income allocation						
V	0	.No					
V	1	.Yes					
D	AREMTINC	1	215				
	Remittance income allocation						
V	0	.No					
V	1	.Yes					

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Name of File: **Census of Population and Housing, 1990: PUBLIC USE MICRODATA SAMPLES, GUAM**

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# APPENDIX A.

## Area Classifications

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These definitions are for all geographic entities and concepts that the Census Bureau will include in its standard 1990 census data products for the Pacific Outlying Areas: American Samoa, the Commonwealth of the Northern Mariana Islands (Northern Mariana

Islands), Guam, and the Republic of Palau (Palau). Not all entities and concepts are shown in any one 1990 census data product. For a description of geographic areas included in each data product, see appendix F.

### 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, 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 the Pacific Outlying Areas 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 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 and related large embayments that belong to the United States and its territories are considered to be "coastal" and "territorial" waters. Streams 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 minor civil division but is not assigned to any block numbering area. Crews-of-vessels entities (see "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 legal boundaries, 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 minor civil divisions, places, or block numbering areas (BNA's). The 1990 census is the first for which the Pacific Outlying Areas are block-numbered, and each area is block-numbered in its entirety.

Blocks are numbered uniquely within each 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 boundary runs through data collection block 101, the data for the portion on one side of the boundary is tabulated in block 101A, and the portion on the other side of the boundary, 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 BNA 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 block numbering area (BNA). For example, BG

3 within a 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 BNA boundaries, but may cross the boundaries of minor civil divisions and places. BG's in the Pacific Outlying Areas were structured to generally contain approximately 140 housing units in Guam and 70 in the other areas, but could be smaller because of the sparse settlement of some first-order subdivisions. 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 minor civil division and place shown in the data product; for example, if BG 3 is partly in a place and partly outside the place or in two different places, there will be separate tabulated records for each portion of BG 3. BG's are used in tabulating decennial census data throughout the Pacific Outlying Areas in the 1990 census. For purposes of data presentation, BG's are a substitute for the enumeration districts (ED's) used for reporting data throughout the Pacific Outlying Areas for previous decennial censuses.

## **BLOCK NUMBERING AREA (BNA)**

Block numbering areas (BNA's) are small statistical subdivisions of a first-order subdivision for grouping and numbering blocks for the Pacific Outlying Areas. Local officials delineated BNA's for the 1990 census, using Census Bureau guidelines. The optimum size for a BNA was 650 housing units in Guam and 300 in the other areas, but could be substantially smaller in lightly settled first-order subdivisions.

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 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 the first-order subdivision. 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 combined with an adjacent BNA.

## **BOUNDARY CHANGES**

The boundaries of some minor civil divisions and places may have changed between those reported for the 1980 census and January 1, 1990. Information on boundary changes for minor civil divisions and, in American Samoa, villages since the 1980 census is documented in the "User Notes" section.

## **CENSUS REGION AND CENSUS DIVISION**

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

## **CONGRESSIONAL DISTRICT**

American Samoa and Guam are each represented in the U.S. House of Representatives by a nonvoting delegate. The Northern Mariana Islands and Palau do not have representation in the House.

## **FIRST-ORDER SUBDIVISION**

"First-order subdivisions" are the highest-level legal subdivisions of a State (in the United States) or a statistically equivalent area. In the United States, this entity usually is called a "county." The entities that serve as the first-order subdivisions for census purposes in the Pacific Outlying Areas are as follows:

- American Samoa: Districts (3) and islands (2)
- Northern Mariana Islands: Municipalities (4)
- Guam: No subdivision at this level; Guam itself serves as an equivalent entity.
- Palau: States (16)

## **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 first-order subdivision and congressional district.

## **Census Code**

Census codes are assigned for a variety of geographic entities, including each Pacific Outlying Area, minor civil division, and place. 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.

## **Federal Information Processing Standards (FIPS) Code**

Federal Information Processing Standards (FIPS) codes are assigned for a variety of geographic entities, including each Pacific Outlying Area, congressional district, first-order subdivision, minor civil division, and place. 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.

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 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 each Pacific Outlying Area is used in all 1990 data products. The code is a two-character alphabetic abbreviation, and 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 the Pacific Outlying Areas is the

“standard census geographic hierarchy”: block, within block group, within block numbering area, within place, within minor civil division, within first-order subdivision, within each Pacific Outlying Area. Graphically, this is shown as:

Pacific Outlying Area  
  First-order subdivision  
    Minor civil division  
      Place (or part)  
      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, block numbering area, or block group. An example of a series of inventory presentations is: Pacific Outlying Area, followed by its first-order subdivisions, followed by all the places. Graphically, this is shown as:

Pacific Outlying Area  
  
  Subdivision “A”  
  Subdivision “B”  
  Subdivision “C”  
  
  Place “X”  
  Place “Y”  
  Place “Z”

## 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 the approximate center to be located outside the boundaries of the entity, it is relocated 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.

## MINOR CIVIL DIVISION

Minor civil divisions (MCD's) are legally defined entities of the first-order subdivisions. The entities that serve as MCD's for census purposes in the Pacific Outlying Areas are as follows:

- American Samoa: Counties (within districts; the islands have no legal subdivisions)
- Northern Mariana Islands: Municipal districts
- Guam: Election districts
- Palau: Municipalities (only in Sonsorol State; the other States have no legal subdivisions)

Each MCD is assigned a three-digit census code in alphabetical order within the first-order subdivision and a five-digit FIPS code in alphabetical order within the Pacific Outlying Area.

## PLACE

For the reporting of decennial census data, places consist of census designated places and incorporated places. Each place is assigned a four-digit census code and a five-digit FIPS code that are unique within the Pacific Outlying Area. Both the census and FIPS codes are assigned based on alphabetical order within each Pacific Outlying Area.

## Census Designated Place (CDP)

Census designated places (CDP's) are delineated for the decennial census as the statistical counterparts of incorporated places in the Northern Mariana Islands, Guam, and Palau. CDP's comprise densely settled concentrations of population that are identifiable by name, but are not legally incorporated places. Their boundaries, which usually coincide with visible features or the boundary of a minor civil division, have no legal status, nor do these places have officials elected to serve traditional municipal functions. 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. To qualify as a CDP for the 1990 census, a community in the Pacific Outlying Areas must have 300 or more persons.

Local officials, following Census Bureau guidelines, first identified and delineated boundaries for CDP's for the 1980 census. In the 1990 census, the name of each such place is followed by “CDP”; in the 1980 census, “(CDP)” was used. Earlier censuses incorrectly referred to these places as cities, towns, and villages.

## Incorporated Place

The Census Bureau treats the villages in American Samoa as incorporated places because they have their own officials, who have specific legal powers as authorized in the American Samoa Code. The village boundaries are traditional rather than being specific, legally defined locations.

## 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, place, block numbering area) 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 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 each Pacific Outlying Area, Puerto Rico, and the Virgin Islands as the statistical equivalent of a State for presenting 1990 census data. The Pacific Outlying Areas include American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the Republic of Palau. (The States in Palau are treated as first-order subdivisions—see above.)

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 Pacific Outlying Area names. Each State and equivalent entity also is assigned a two-digit census code. This code is assigned on the basis of the geographic sequence of each State within each census division. The first digit of the code is the code for the respective division except for Puerto Rico, the Virgin Islands, and the Pacific Outlying Areas, 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 each Pacific Outlying Area, Puerto Rico, and the Virgin Islands (see "State") as statistical equivalents of States for the 1990 census.

## URBAN AND RURAL

The Census Bureau defines "urban" for the 1990 censuses of the Pacific Outlying Areas as comprising all territory, population, and housing units in places of 2,500 or more persons. Territory, population, and housing units not classified as urban constitute "rural." In most data products, "rural" is divided into "places of less than 2,500" and "not in places." The "not in places" category comprises "rural" outside incorporated and census designated places. In many data products, the term "other rural" is used; "other rural" is a residual category specific to the classification of rural in each data product.

In some 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 may be both urban and rural territory within any first-order subdivision or minor civil division.

# APPENDIX B.

## Definitions of Subject Characteristics

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## POPULATION CHARACTERISTICS

### AGE

The data on age were derived from answers to questionnaire item 5. The age classification is based on the age of the person in complete years as of April 1, 1990. The age response in question 5a was used normally to represent a person's age. However, when the age response was unacceptable or unavailable, a person's age was derived from an acceptable year-of-birth response in question 5b.

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

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

**Median Age**—This measure divides the age distribution into two equal parts: one-half of the cases falling below the median value and one-half above the value. Generally, median age is computed on the basis of more detailed age intervals than are shown in some census publications; thus, a median based on a less detailed

distribution may differ slightly from a corresponding median for the same population based on a more detailed distribution. (For more information on medians, see the discussion under "Derived Measures.")

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

Review of detailed 1990 census information indicated that respondents tended to provide their age as of the date of completion of the questionnaire, not their age as of April 1, 1990. In addition, there may have been a tendency for respondents to round their age up if they were close to having a birthday. It is likely that approximately 10 percent of persons in most age groups are actually 1 year younger. For most single years of age, the misstatements are largely offsetting. The problem is most pronounced 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 complete 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 previous censuses where age was typically derived from respondent data on year of birth and quarter of birth.

**Comparability**—Age data have been collected in every census. The 1990 data are not available by quarter year of age. This change was made so that coded information could be obtained for both age and year of birth. Since 1960, in American Samoa and in Guam, and in 1970, in the Commonwealth of the Northern Mariana Islands (Northern Mariana Islands) and Republic of Palau (Palau), assignment of unknown age has been performed by a general procedure described as "imputation." The specific procedures for imputing age have been different in each census. (For more information on imputation, see Appendix C, Accuracy of the Data.)

### CITIZENSHIP

The data on citizenship were derived from answers to questionnaire item 8, which was asked of all persons. The question differed for Palau from the other Pacific Outlying Areas.

For American Samoa, Guam, and the Northern Mariana Islands: "Citizens or nationals" were persons who responded in one of these four categories of citizenship: (1) born in this area, (2) born in the United States or another U. S. Territory or Commonwealth, (3) born elsewhere of U. S. parent or parents, or (4) U. S. citizen by naturalization.

Naturalized citizens were foreign-born persons who had completed the naturalization process at the time of the census and upon whom the rights of citizenship had been conferred.

Persons "Not a citizen or national" were foreign-born persons who were not citizens, including persons who had begun but not completed the naturalization process at the time of the census. These included persons who resided "permanently" in the area and those who resided only "temporarily" in the area.

For Palau, persons born on Palau were considered to be citizens of Palau. U.S. citizens were persons who responded that they were U.S. born, born in a U.S. Territory or Commonwealth, or were foreign-born persons who were naturalized. The three categories of U.S. citizenship were: (1) born in the United States or another U. S. Territory or Commonwealth, (2) born elsewhere of U. S. parent or parents, and (3) U. S. citizen by naturalization.

Naturalized citizens were foreign-born persons who had completed the U.S. naturalization process at the time of the census and upon whom the rights of citizenship had been conferred.

Persons "Not born in Palau and not a U.S. citizen" were foreign-born persons who were not born in Palau and also were not U.S. citizens, including persons who had begun but not completed the naturalization process at the time of the census.

**Limitation of the Data**—Studies after previous censuses showed that some persons undergoing naturalization may have reported themselves as citizens although they had not yet attained the status.

**Comparability**—A question on citizenship was asked in the 1980 census, but for Guam only.

## COMMUTING CHARACTERISTICS

### Means of Transportation to Work

The data on means of transportation to work were derived from answers to questionnaire item 23a, which was asked of persons who indicated in question 21 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 private van/ bus"

includes workers using a car (including company cars but excluding taxicabs), a truck of one-ton capacity or less, or a privately-owned van or bus. The category "Public transportation" includes workers who used a boat, public van/ bus, or taxicab even if each mode is not shown separately in the tabulation. The category "Other method" includes workers who used a mode of travel that is not identified separately within the data distribution. The category "Other method" 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 (for example, taxicab riders in an area where there actually is no taxicab 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 taxicab service was available) and persons who used more than one means of transportation each day but whose principal means was unavailable where they lived.

In distributions classified by industry, Armed Forces personnel are included in the totals by industry but are not shown separately.

### Private Vehicle Occupancy

The data on private vehicle occupancy or carpooling were derived from answers to questionnaire item 23b. This question was asked of persons who indicated in question 21 that they worked at some time during the reference week and who reported in question 23a that their means of transportation to work was "Car, truck, or private van/ bus." (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.

In distributions classified by industry, Armed Forces personnel are included in the totals by industry but are not shown separately.

**Persons Per Private Vehicle**—This measure is obtained by dividing the number of persons who reported using a car, truck, or private van/ bus 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 24a. This question was asked of persons who indicated in question 21a that they worked at some time during the reference week and who reported in question 23a 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.")

In distributions classified by industry, Armed Forces personnel are included in the totals by industry but are not shown separately.

### **Travel Time to Work**

The data on travel time to work were derived from answers to questionnaire item 24b. This question was asked of persons who indicated in question 21 that they worked at some time during the reference week and who reported in question 23a 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.")

In distributions classified by industry, Armed Forces personnel are included in the totals by industry but are not shown separately.

## **EDUCATIONAL ATTAINMENT**

Data on educational attainment were derived from answers to questionnaire item 11a. Data are tabulated for persons 15 years old and over. Persons are classified according to the highest grade of school completed or the highest degree received. For persons currently enrolled in school, the question included instructions to report the level of the previous grade attended or the highest degree received. The question included response categories which allowed persons to report completing the 12th grade without receiving a high school diploma. Respondents were to report as "high school graduate(s)" persons who received either a high school diploma or the equivalent, for example, passed the Test of General Educational Development (G.E.D.), and did

not attend college. (On the Military Census Report questionnaire for Guam, the lowest response category was "Less than 9th grade.")

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

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

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

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

"Percent high school graduate or higher" and "Percent bachelor's degree or higher" are summary measures which can be calculated from the present data and offer quite readily interpretable measures of differences between population subgroups. To make comparisons with data from previous censuses, "Percent high school graduate or higher" can be calculated and "Percent bachelor's degree or higher" can be approximated.

**Comparability**—Educational attainment questions on years of school completed were included in the censuses of Guam and American Samoa beginning in 1950. In 1940, a question on years attending school was asked. For the Northern Mariana Islands and Palau, the questions were first asked in 1970. In 1950, a single question was asked on highest grade of school completed. In the censuses of 1960 through 1980, a two-part question asking highest grade of school attended and whether that grade was finished was used to

construct highest grade or year of school completed. For persons who have not attended college, the response categories in the 1990 educational attainment question should produce data which are comparable to data on highest grade completed from earlier censuses.

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

## EMPLOYMENT STATUS

The data on employment status were derived from answers to questionnaire items 21, 25, and 26, which were asked of persons 15 years and over. The series of questions on employment status was designed to identify, in this sequence: (a) persons who worked at a job or business or farm at any time during the reference week; (b) persons who did not do such work during the reference week, but who had jobs or businesses from which they were temporarily absent (excluding layoff); (c) persons on layoff; and (d) persons who did not do such work during the reference week, but who were looking for work to earn money during the last 4 weeks and were available for work during the reference week.

The employment status data shown in this and other 1990 census reports relate to persons 16 years old and over. Some tables showing employment status, however, include 15 year olds. By definition, these persons are classified as "not in labor force." In 1940, 1950, and 1960, 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 (a) "at work"—those who did any work at all during the reference week as paid employees or in their own business or profession, or on their own farm, or who worked 15 or more hours as unpaid workers on a

family farm or in a family business; or (b) were "with a job but not at work"—those who did not do such work during the reference week, but who 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 without jobs or businesses whose only activity consisted of work around the house or unpaid volunteer work for religious, charitable, and similar organizations; persons without jobs or businesses who did subsistence activity only during the reference week; and persons on active duty in the United States Armed Forces.

**Unemployed**—All civilians 16 years old and over who (a) were neither "at work" nor "with a job but not at work" during the reference week, or who did subsistence activity only; (b) were looking for work to earn money during the last 4 weeks; and (c) were available to accept a job. 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

Also included as unemployed are civilians 16 years old and over who did not work at a job or business during the reference week and were waiting to be called back to a job from which they had been laid off.

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

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

**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 Armed Forces (persons on active duty with the United States 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 persons doing subsistence activity only, 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).

**Subsistence Activity**—A person engaged in subsistence activities if he or she mainly produced goods for his or her own or family's use and needs, such as growing/gathering food, fishing, cutting copra for home use, raising livestock, making handicrafts for home use, and other productive activities not primarily for commercial purposes. When subsistence activity categories are shown with the "Employed" and the "Not in labor force" categories of the employment status concept, they relate to activities engaged in during the census reference week. Persons who did subsistence activity only during the reference week are *not* classified as "employed," unless they were "with a job but not at work" (see definition of "employed").

**Worker**—This term appears in connection with several subjects, for example, commuting items, class of worker, weeks worked in 1989, and 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 at a job or business or farm during the reference week were asked to report in questionnaire item 21b the number of hours that they worked, excluding any time at subsistence activity. The statistics on hours worked for "employed, at work" persons 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 worked" 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 report themselves as working. This problem has no effect whatsoever on the total number of employed persons. The reference week for the employment data is not the same for all persons. This 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 were essentially the same as those used in the 1980 census. However, these concepts differed in many respects from those associated with earlier 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, other series, unlike those presented here, 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 because persons who had a job but were not at work are included with the employed in the statistics shown here, whereas many of these persons are likely to be excluded from employment figures based on establishment payroll reports. Furthermore, the employment status data in this report 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 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.

For several reasons, the unemployment figures of the Bureau of the Census are not 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 reports. 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.

## ETHNIC ORIGIN OR RACE

The data on ethnic origin or race were derived from the answers to questionnaire item 4. The question was based on self-identification and was open-ended (respondents were required to provide the answer). Ethnic origin or race refers to a person's origin or descent, "roots," heritage, or place where the person or the person's parents or ancestors were born. Persons reported their ethnic group regardless of the number of generations removed from their place of origin. Responses to the ethnic origin question reflected the ethnic group(s) with which persons identified and not necessarily the degree of attachment or association the persons had with the particular group(s).

Ethnic origin or race is different from other population characteristics that are sometimes regarded as indicators of ethnicity, namely country of birth and language spoken at home. A large number of persons reported their ethnic origin or race by specifying a single ethnic group, but some reported two, three, or more ethnic groups. Responses were coded by a procedure that allowed for identification of the first two responses reported.

In published tabulations, multiple groups are designated in general open-ended categories such as "Chamorro and other group(s)," rather than in specific multiple ethnic groups such as "Chamorro-Carolinian." A person who reported "Chamorro-Carolinian" ethnicity, for example, is included in the "Chamorro and other group(s)" and in the category "Carolinian and other group(s)." A few responses consisting of two terms (for example, French Canadian) were considered as a single group and, thus, were coded and tabulated as a single ethnicity. Certain combinations of ethnic groups where the ancestry group is a part of another, such as "German-Bavarian," the response was coded as a single ancestry using the smaller group ("Bavarian"). Also, responses such as "Polish-American" or "Italian-American" were tabulated as a single entry (that is, "Polish" or "Italian"). American was accepted as a unique ethnicity if it was given alone, with an ambiguous response, or with State names. If the respondent listed any other ethnic identity such as "Chamorro-American," generally the "American" portion of the response was not coded.

**Limitation of the Data**—The Bureau of the Census cannot collect information on religion. Entries of religious groups were not coded separately, but were tabulated in the category "Ethnic group not specified."

**Comparability**—A question on ethnic origin or race was first asked as an open-ended item in the 1980 census. In 1990, although respondents were allowed to report more than two ethnic groups, only the first two ethnic groups identified were coded. There was no imputation for nonresponse to the 1980 ethnic origin question. The 1990 ethnic origin or race data were imputed using

information from other items (parental birthplace and language), other members of the housing unit, or other persons in nearby housing units.

## FERTILITY

The data on fertility (also referred to as "children ever born") were derived from answers to questionnaire item 20, which was asked of women 15 years old and over regardless of marital status. Stillbirths, stepchildren, and adopted children were excluded from the number of children ever born. Ever-married women were instructed to include all children born to them before and during their most recent marriage, children no longer living, and children away from home, as well as children who were still living in the home. Never-married women were instructed to include all children born to them.

Data are most frequently presented in terms of the aggregate number of children ever born to women in the specified category and in terms of the rate per 1,000 women. For purposes of calculating the aggregate, the open-ended response category "15 or more" is assigned a value of 15.

**Comparability**—The wording of the question on children ever born was the same in 1990 as in 1980. In 1970, however, the terminal category was "12 or more" children ever born. In virtually all of the tables in 1970 census volumes, data presented on children ever born to all women assumed that single women were childless, even though it was known that some of the women have had children. Therefore, rates and numbers of children ever born are not comparable between 1980 reports and previous census reports. Data presented for children ever born between 1980 and 1990 reports are comparable as well as all tables for all census years which show data for ever-married women.

## 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 prisons, Federal detention centers, military stockades and jails, police lockups, halfway houses, local jails, and other confinement facilities, including work farms.

*Prisons*—Where persons convicted of crimes serve their sentences. In some census products, the prisons are classified by two types of control: (1) "Federal" (operated by the Bureau of Prisons of the Department of Justice) and (2) "State." 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 departments of correction or similar agencies; or (2) in institutions operated by departments of mental health or similar agencies.

*Federal Detention Centers*—Operated by the Immigration and Naturalization Service (INS) and the Bureau of Prisons. These facilities include INS Centers, such as the INS Federal Alien Detention Facility; INS Processing Centers; and INS Contract Detention Centers used to detain aliens under exclusion or deportation proceedings, as well as those aliens who have not been placed into proceedings, such as custodial required departures; and INS Detention Centers operated within local jails, and State and Federal prisons.

*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 local governments that primarily hold persons beyond arraignment, usually for more than 48 hours. Also included in this category are work farms used to hold persons

awaiting trial or serving time on relatively short sentences and jails run by private businesses under contract for local governments (but *not* by State governments).

*Police Lockups*—Temporary-holding facilities operated by local 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.

*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 "Federal," "State," "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, nursing homes are classified by type of ownership as "Federal," "State or local," "Private," and "Ownership not known."

*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 Hansen's Disease (leprosy) and other 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 "Federal," "State or local," "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 "Public," "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 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 "Public" 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; and communes.

*Homes for the Mentally Ill*—Includes community-based homes that provide care primarily for the mentally ill. 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.

*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.

*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.

*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.

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, in transient quarters on base for temporary residents (both civilian and military), and on military ships. However, patients in military hospitals receiving treatment for chronic diseases or who had 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, such as those on “tree 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)*—Enumerators were instructed not to ask if a person was “homeless.” If a person was at one of the locations below on April 1, the person was counted as described below. This category is divided into three classifications:

*Emergency Shelters for Homeless Persons (With Sleeping Facilities)*—Includes persons staying 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.

*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.”

*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 enumerated with no usual home elsewhere during transient or “T-Night,” enumerated at YMCA's, YWCA's, youth hostels, commercial and government-run campgrounds, campgrounds at racetracks, fairs and carnivals, and similar transient sites.

*Living Quarters for Victims of Natural Disaster*—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 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.”

**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 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” and “shelters for abused women.”

## HOUSEHOLD TYPE AND RELATIONSHIP

### Household

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

**Persons Per Household**—A measure obtained by dividing the number of persons in households by the number of households (or householders). In cases where persons in households are cross-classified by ethnic origin or race, persons in the household are classified by the ethnic origin or race of the householder rather than the ethnic origin or race of each individual.

### Relationship to Householder

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

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

**Spouse**—Includes a person married to and living with a householder. This category includes persons in formal marriages, as well as persons in common-law marriages.

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

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

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

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

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

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

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

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

*Grandchild*—The grandson or granddaughter of the householder.

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

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

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

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

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

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

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

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

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

### **Unrelated Individual**

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

## Family Type

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

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

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

*Other Family:*

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

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

**Persons Per Family**—A measure obtained by dividing the number of persons in families by the total number of families (or family householders). In cases where the measure, "persons in family" or "persons per family" are cross-tabulated by ethnic origin or race, the ethnic origin or race refers to the householder rather than the ethnic origin or race of each individual.

## Subfamily

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

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

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

## Unmarried-Couple Household

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

## Foster Children

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

## Stepfamily

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

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

## INCOME IN 1989

The data on income in 1989 were derived from answers to questionnaire items 32 and 33. Information on money income received in the calendar year 1989 was requested from persons 15 years old and over. "Total income" is the algebraic sum of the amounts reported separately for wage or salary income; net nonfarm self-employment and farm self-employment income; interest, dividend, or net rental or royalty income; Social Security or railroad retirement income; public assistance or welfare income; retirement or disability income; remittance income; and all other income. "Earnings" is defined as the algebraic sum of wage or salary income and net income from farm and nonfarm self-employment. "Earnings" represent the amount of income received regularly before deductions for personal income taxes, Social Security, bond purchases, union dues, medicare deductions, etc.

Receipts from the following sources are not included as income: money received from the sale of property (unless the recipient was engaged in the business of selling such property); the value of income "in kind" from food stamps, public housing subsidies, medical care, employer contributions for persons, etc.; withdrawal of bank deposits; money borrowed; tax refunds; exchange of money between relatives living in the same household; gifts and lump-sum inheritances, insurance payments, and other types of lump-sum receipts.

## Income Type in 1989

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

1. *Wage or Salary Income*—Includes total money earnings received for work performed as an employee during the calendar year 1989. It includes wages, salary, Armed Forces pay, commissions, tips, piece-rate payments, and cash bonuses earned before deductions were made for taxes, bonds, pensions, union dues, etc.
2. *Self-Employment Income*—Nonfarm self-employment income includes net money income (gross receipts minus expenses) from one's own business, professional enterprise, or partnership. Gross receipts include the value of all goods sold and services rendered. Expenses includes costs of goods purchased, rent, heat, light, power, depreciation charges, wages and salaries paid, business taxes (not personal income taxes), etc. Farm self-employment income includes net money income (gross receipts minus operating expenses) from the operation of a farm by a person on his or her own account, as an owner, renter, or sharecropper. Gross receipts include the value of all products sold, government farm programs, money received from the rental of farm equipment to others, and incidental receipts from the sale of wood, sand, gravel, etc. Operating expenses include cost of feed, fertilizer, seed, and other farming supplies, cash wages paid to farmhands, depreciation charges, cash rent, interest on farm mortgages, farm building repairs, farm taxes (not personal income taxes), etc. The value of fuel, food, or other farm products used for family living is not included as part of net income.
3. *Interest, Dividend, or Net Rental Income*—Includes interest on savings or bonds, dividends from stockholdings or membership in associations, net income from rental of property to others and receipts from boarders or lodgers, net royalties, and periodic payments from an estate or trust fund.
4. *Social Security Income*—Includes Social Security pensions and survivors benefits and permanent disability insurance payments made by the Social Security Administration prior to deductions for medical insurance, and railroad retirement insurance checks from the U.S. Government. Medicare reimbursements are not included.
5. *Public Assistance Income*—Includes: (1) supplementary security income payments made by Federal or State welfare agencies to low income persons who are aged (65 years old or over), blind, or disabled; (2) aid to families with dependent children, and (3) general assistance. Separate payments received for hospital or other medical care (vendor payments) are excluded from this item.
6. *Retirement or Disability Income*—Includes: (1) retirement pensions and survivor benefits from a former employer, labor union, or Federal, State, county, or other governmental agency; (2) disability income from sources such as worker's compensation; companies or unions; Federal, State, or local government; and the U.S. military; (3) periodic receipts from annuities and insurance; and (4) regular income from IRA and KEOGH plans.
7. *Remittance Income*—Includes money received from relatives who are (1) civilians living outside the household or (2) in the military outside the household; for example, allotments.
8. *All Other Income*—Includes unemployment compensation, Veterans' Administration (VA) payments, alimony and child support, contributions received periodically from persons not living in the household, military family allotments, net gambling winnings, and other kinds of periodic income other than earnings.

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

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

income amounts reported by related persons who did not reside with the family during 1989 but who were members of the family at the time of enumeration are included. However, the composition of most families was the same during 1989 as in April 1990.

**Median Income**—The median divides the income distribution into two equal parts, one having incomes above the median and the other having incomes below the median. For households and families, the median income is based on the distribution of the total number of units including those with no income. The median for persons is based on persons with income. The median income values for all households, families, and persons are computed on the basis of more detailed income intervals than shown in most tabulations. Median income figures are calculated using linear interpolation.

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

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

**Limitation of the Data**—Since questionnaire entries for income frequently are based on memory and not on records, many persons tend to forget minor or irregular sources of income and, therefore, underreport their income. Underreporting tends to be more pronounced for income sources that are not derived from earnings, such as Social Security, public assistance, or from interest, dividends, and net rental income.

There are errors of reporting due to the misunderstanding of the income questions such as reporting gross rather than net dollar amounts for the two questions on net self-employment income, which resulted in an overstatement of these items. Another common error is the reporting of identical dollar amounts in two of the eight type of income items where a respondent with

only one source of income assumed that the second amount should be entered to represent total income. Such instances of overreporting had an impact on the level of mean farm or nonfarm self-employment income and mean total income published for the various geographical subdivisions of the area.

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

In income tabulations for households and families, the lowest income group (for example, less than \$2,500) includes units that were classified as having no 1989 income. Many of these were living on income "in kind," savings, or gifts, were newly created families, or families in which the sole breadwinner had recently died or left the household. However, many of the households and families who reported no income probably had some money income which was not recorded in the census. Some may have been living from subsistence activity only.

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

**Comparability**—The income data collected in the 1980 and 1970 censuses are similar to the 1990 census data,

but there are variations in the detail of the questions. In 1980, each person was required to report:

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

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

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

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

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

## **INDUSTRY, OCCUPATION, AND CLASS OF WORKER**

The data on industry, occupation, and class of worker were derived from answers to questionnaire items 28, 29, and 30 respectively. Information on industry relates

to the kind of business conducted by a person's employing organization; occupation describes the kind of work the person does on the job.

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

Respondents provided the data for the tabulations by reporting descriptions of their industry and occupation. These descriptions were referred to clerical staff in the Census Bureau's Jeffersonville, Indiana processing office for coding. The clerical staff converted the written questionnaire descriptions to codes by comparing these descriptions to entries in the *Alphabetical Index of Industries and Occupations*.

### **Industry**

The industry classification system developed for the 1990 census consists of 235 categories for employed persons, classified into 13 major industry groups. Since 1940, the industrial classification was based on the Standard Industrial Classification Manual (SIC). The 1990 census classification was developed from the 1987 SIC published by the Office of Management and Budget, Executive Office of the President.

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

### **Occupation**

The occupational classification system developed for the 1990 census consists of 500 specific occupational categories for employed persons arranged into 6 summary and 13 major occupational groups. This classification was developed to be consistent with the Standard Occupational Classification (SOC) Manual: 1980, published by the Office of Federal Statistical Policy and Standards, U.S. Department of Commerce. Tabulations with occupation as the primary characteristic present several levels of occupational detail.

Some occupation groups are related closely to certain industries. Operators of transportation equipment, farm operators and workers, and private household

workers account for major portions of their respective industries of transportation, agriculture, and private households. However, the industry categories include persons in other occupations. For example, persons employed in agriculture include truck drivers and bookkeepers; persons employed in the transportation industry include mechanics, freight handlers, and payroll clerks; and persons employed in the private household industry include occupations such as chauffeur, gardener, and secretary.

### **Class of Worker**

The data on class of worker were derived from answers to questionnaire item 30. The information on class of worker refers to the same job as a respondent's industry and occupation and categorizes persons according to the type of ownership of the employing organization. The class of worker categories are defined as follows:

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

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

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

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

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

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

The industry category "Public administration" is limited to regular government functions such as legislative, judicial, administrative, and regulatory activities of governments. Other government organizations such as

schools, hospitals, liquor stores, and bus lines are classified by industry according to the activity in which they are engaged. On the other hand, the class of worker government categories include all government workers.

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

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

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

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

In the 1990 census, the industry classification had minor revisions to reflect recent changes to the SIC. The 1990 occupational classification system is essentially the same as that for the 1980 census. However,

the conversion of the census classification to the SOC in 1980 meant that the 1990 classification system was less comparable to the classifications used prior to the 1980 census.

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

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

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

Comparability between the statistics on industry and occupation from the 1990 census and statistics from other sources is affected by many of the factors described in the section on "Employment Status." These factors are primarily geographic differences between residence and place of work, different dates of reference, and differences in counts because of dual job holding. Industry data from population censuses cover all industries and all kinds of workers, whereas, data from

establishments often excluded private household workers, government workers, and the self-employed. Also, the replies from household respondents may have differed in detail and nature from those obtained from establishments.

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

## LANGUAGE SPOKEN AT HOME AND FREQUENCY OF LANGUAGE USAGE

The data on language spoken at home were derived from answers to questionnaire items 15b, 15c, and 15d. They are intended to measure the extent to which languages other than English are currently being spoken and how frequently they are spoken relative to English. The questions were asked only of persons 5 years old and over.

**Language Spoken at Home**—Persons were asked in questionnaire item 15b whether they currently speak a language other than English at home. They were not to include languages spoken only at school or languages for which the ability is limited to a few words or slang. Persons who spoke only English at home were instructed to answer "No" and to skip the remainder of the language questions.

Those persons who reported speaking a language other than English were asked in question 15c to report the non-English language spoken at home. If more than one non-English language was spoken, the person was asked which language was spoken most often. If it could not be determined which was spoken most often, the first language the person learned to speak was to be recorded. The response was written on the form by the enumerator and later given a three-digit code in a separate operation. Answers were coded using a detailed list of languages which distinguished more than 380 languages or language groups. If more than one language was written on the form only the first non-English language was coded.

**Frequency of Language Usage**—Persons who reported in 15b that they spoke a language other than English at home were asked to report in item 15d the frequency with which they spoke the other language relative to English in one of the following categories: "more frequently than English," "both equally often," "less frequently than English," or "does not speak English."

The "imputation" procedure for persons who failed to report language spoken involved attributing the language of other household members to a person with no entry. If that was not possible, the language of a person of like ethnic origin and other demographic characteristics was imputed. Unreported frequency of use was allocated in a similar manner.

**Comparability**—These questions were asked for the first time in the 1980 census. The language categories shown in the report are slightly different from 1980. In the U.S. census a question is asked on ability to speak English rather than frequency of use.

## LITERACY

Data on literacy, or ability to read and write, were derived from responses to questionnaire item 15a, which was asked of persons 5 years old and over. In reports, the data are generally shown only for persons 10 years old and over since persons less than 10 years old have not yet completed the 5th grade and are more likely to be considered not literate only because of the limited exposure to schooling. Respondents were asked if they could read and write in any language. They could report being literate in English or any other language. The enumerators were instructed that a literate person would have the ability to read a letter from someone else and also write a letter. A person was not literate if he/she could read but not write, or if the writing ability was limited to writing the person's own name.

**Comparability**—This question was asked in the 1980 and 1920-1940 censuses.

## MARITAL STATUS

The data on marital status were derived from answers to questionnaire item 6, which was asked of all persons. The marital status classification refers to the status at the time of enumeration. Data on marital status are tabulated only for persons 15 years old and over.

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

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

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

**Now Married, Except Separated**—Includes persons whose current marriage has not ended through widowhood, divorce, or separation (regardless of previous marital history). The category may also include couples who live together or persons in common-law marriages, if they consider this category the most appropriate. In certain tabulations, currently married persons are further classified as "spouse present" or "spouse absent."

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

**Widowed**—Includes widows and widowers who have not remarried.

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

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

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

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

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

*Separated*—Defined above.

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

Differences between the number of currently married males and the number of currently married females occur because of reporting differences and because some husbands and wives have their usual residence in different areas.

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

**Comparability**—The 1990 marital status definitions are the same as those used in 1980 with the exception of the term “never married,” which replaced the term “single” in tabulations. Also, the category “consensually married” has been dropped.

## MILITARY BENEFITS

The data on military benefits were derived from answers to questionnaire item 17e. Military benefits includes money received regularly from retirement or disability pensions paid by the U.S. military or the Department of Veterans Affairs (VA) to former members of the Armed Forces or their survivors. U.S. military retirement income is received by retired military personnel who served for 20 years or more in the Armed Forces. Corresponding military retirement disability income is received by veterans with 20 or more years service before retiring due to a disability or other serious health condition. U.S. military survivor pensions are received by survivors of military personnel who retired before their death. The VA benefits include (1) disability payments received by veterans with a service-connected disability or by low-income veterans with a nonservice-connected disability and (2) pensions received by survivors of veterans whose death occurred while in military service.

**Comparability**—This was the first time that a question on military benefits was included in the census.

## MILITARY DEPENDENCY

The data on military dependency were derived from the answers to questionnaire item 13. The question was asked only in the U.S. Pacific Outlying Areas. Other items determined whether anyone in the housing unit was a current or past member of the Armed Forces. This item was used to determine whether other persons in the housing unit were a dependent of (1) an active-duty member of the Armed Forces or (2) a retired member of the Armed Forces, or (3) an active-duty or retired member of the full-time National Guard or Armed Forces Reserve. All other persons were to report in the “No, not a dependent” category.

**Comparability**—Since this item was asked for the first time in the 1990 census, no comparable data exist.

## MOBILITY LIMITATION STATUS

The data on mobility limitation status were derived from answers to questionnaire item 19a, which was asked of persons 15 years old and over. Persons were identified as having a mobility limitation if they had a health condition that had lasted 6 or more months and

which made it difficult to go outside the home alone. Examples of outside activities on the questionnaire included shopping and visiting a doctor's office.

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

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

## PLACE OF BIRTH AND PARENTS' PLACE OF BIRTH

The data on place of birth were derived from answers to question 7. Father's place of birth and mother's place of birth were derived from answers to questions 12a and 12b. Each place of birth question asked for the name of the island, the U.S. State, or the foreign country where the person or the person's parents were born according to current international boundaries. Since numerous changes in boundaries of foreign countries have occurred in the last century, some persons may have reported their place of birth or their parents' place of birth in terms of boundaries that existed at the time of the birth or emigration, or in accordance with their own national preference.

Persons not reporting place of birth were assigned the birthplace of another family member or were allocated the response of another person or parent with similar characteristics. Persons allocated as born outside the area of current residence were not allocated a specific foreign country of birth, but were classified as “Born abroad, country or area not specified.” The places of birth shown in the report were selected based on the number of respondents who chose to report that area or country of birth.

**Comparability**—Similar data were shown in tabulations for the 1980 census. However, nonresponse was not allocated. Instead, such persons were shown separately in the tables under “Place of birth not reported.”

## POVERTY STATUS IN 1989

The data on poverty status were derived from answers to the same questions as the income data, questionnaire items 32 and 33. (For more information, see the discussion under “Income in 1989.”) Poverty statistics presented in census publications were based on a definition originated by the Social Security Administration in 1964 and subsequently modified by Federal interagency committees in 1969 and 1980 and prescribed by the Office of Management and Budget in Directive 14 as the standard to be used by Federal agencies for statistical purposes.

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

The income cutoffs used by the Census Bureau to determine the poverty status of families and unrelated individuals included a set of 48 thresholds arranged in a two-dimensional matrix consisting of family size (from 1 person to 9 or more persons) cross-classified by presence and number of family members under 18 years old (from no children present to 8 or more children present). Unrelated individuals and two-person families were further differentiated by age of the householder (under 65 years old and 65 years old and over).

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

The poverty thresholds are revised annually to allow for changes in the cost of living as reflected in the Consumer Price Index. The average poverty threshold for a family of four persons was \$12,674 in 1989. (For

more information, see table A on page B-21.) Poverty thresholds were applied on a national basis for the U.S. and were not adjusted for regional, State or local variations in the cost of living. For a detailed discussion of the poverty definition, see U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 171, *Poverty in the United States: 1988 and 1989*.

**Persons for Whom Poverty Status is Determined—**

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

**Specified Poverty Levels—**

Since the poverty levels currently in use by the Federal Government do not meet all the needs of data users, some of the data are presented for alternate levels. These specified poverty levels are obtained by multiplying the income cutoffs at the poverty level by the appropriate factor. For example, the average income cutoff at 125 percent of poverty level was \$15,843 ( $\$12,674 \times 1.25$ ) in 1989 for a family of 4 persons.

**Weighted Average Thresholds at the Poverty Level—**

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

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

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

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

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

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

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

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

1. The separate thresholds for families with a female householder with no husband present and all other families were eliminated. For the 1980 and 1990 censuses, the weighted average of the poverty thresholds for these two types of families was applied to all types of families, regardless of the sex of the householder.
2. Farm families and farm unrelated individuals no longer had a set of poverty thresholds that were lower than the thresholds applied to nonfarm families and unrelated individuals. The farm thresholds were 85 percent of the corresponding levels for nonfarm families in the 1970 census. The same thresholds were applied to all families and unrelated individuals regardless of residence in 1980 and 1990.

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

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

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

## REFERENCE WEEK

The data on labor force status and commuting characteristics were related to the reference week; that is, the calendar week preceding the date on which the respondents 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**—Except for Palau, 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. For Palau, the 1980 census enumeration began in September 1980.

## RESIDENCE IN 1985

The data on residence in 1985 were derived from answers to question 14b, which asked for the island, U.S. State, or foreign country of residence on April 1, 1985, for those persons reporting in question 14a that

they lived in a different house than their current residence on that date. Persons living in the same area in which they were enumerated were also asked to report the name of the village in which they lived 5 years earlier.

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

The tabulation category "Same house" in the area includes all persons 5 years old and over who did not move during the 5 years as well as those who had moved but by 1990 had returned to their 1985 residence. The category "Different house" in the area includes persons who lived in the same area in 1985 but in a different house or apartment from the one they occupied on April 1, 1990. These movers are then further subdivided according to whether or not they previously lived in the same municipality, county, or district, as their current residence. Selected countries are shown in the tables for persons who lived outside the area in which they were enumerated in 1985; persons living in countries not shown separately are included in the "Elsewhere" category.

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

**Comparability**—Similar questions were asked in 1980 but previous residence was not allocated for nonresponse. These persons were shown in the category "Residence in 1975 not reported." In the 1970 census, the migration questions did not ask for residence in a specific village or island within the area.

### **SCHOOL ENROLLMENT AND LABOR FORCE STATUS**

Tabulation of data on enrollment, educational attainment, and labor force status for the population 16 to 19 years old allows for calculation of the proportion of the age group who are not enrolled in school and not high school graduates or "dropouts" and an unemployment rate for the "dropout" population. Definitions of the three topics and descriptions of the census items from which they were derived are presented in "Educational

Attainment," "Employment Status," and "School Enrollment and Type of School." The published tabulations include both the civilian and Armed Forces populations, but labor force status is provided for the civilian population only. Therefore, the component labor force statuses may not add to the total lines *high school graduate* and *not high school graduate*. The difference is Armed Forces.

**Comparability**—The tabulation of school enrollment by labor force status is similar to that published in 1980 census reports. The 1980 census tabulation included a single data line for Armed Forces; however, enrollment, attainment, and labor force status data were shown for the civilian population only. In 1970, a tabulation was included for 16 to 21 year old males not attending school.

### **SCHOOL ENROLLMENT AND TYPE OF SCHOOL**

Data on school enrollment were derived from answers to questionnaire item 10. Persons were classified as enrolled in school if they reported attending a "regular" public or private school or college at any time between February 1, 1990, and the time of enumeration. The question included instructions to "include only pre-kindergarten, kindergarten, elementary school, and schooling which would lead to a high school diploma or a college degree" as regular school. Enumerators were instructed that enrollment in a trade or business school, company training, or tutoring were not to be included unless the course would be accepted for credit at a regular elementary school, high school, or college. Persons who did not answer the enrollment question were assigned the enrollment status and type of school of a person with the same age, ethnic origin or race, and at older ages, sex, whose residence was in the same or a nearby area.

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

**Level of School in Which Enrolled**—Persons who were enrolled in school were classified as enrolled in "preprimary school," "elementary school," "high school," or "college" according to their response to question 11a (years of school completed or highest degree received). Persons who were enrolled and reported

completing pre-kindergarten school or less were classified as enrolled in "preprimary school," which includes kindergarten. Similarly, enrolled persons who had completed at least kindergarten, but not 8th grade, were classified as enrolled in elementary or high school. Persons who completed at least the 8th grade, but who were not high school graduates, were classified as enrolled in high school. Enrolled persons who reported completing high school or some college or having received a post-secondary degree were classified as enrolled in "college." Enrolled persons who reported completing the twelfth grade but receiving "NO DIPLOMA" were classified as enrolled in high school. (For more information on level of school, see the discussion under "Educational Attainment.")

**Comparability**—School enrollment questions have been included in the censuses of Guam and American Samoa since 1930; grade attended was first included in 1950; and type of school was first asked in 1960. Questions on school enrollment were first asked in the Northern Mariana Islands and Palau in 1970. In 1930, the reference period was "since September 1, 1929"; in 1940 it was since March 1"; in 1950 and all subsequent censuses, the question referred to attendance "since February 1" (except for Palau in 1980, where the census was conducted on September 15, 1980, and reference was "Since September 1, 1980...").

Enrollment in the 1930 census included attendance at a school or college of any kind; in 1940 vocational school, extension school and night school were included if the school was part of the "regular school system;" in 1950 the term "regular school" was introduced, and it was defined as schooling which "advances a person towards an elementary or high school diploma or a college, university, or professional school degree." Vocational, trade, or business schools were excluded unless they were graded and considered part of a regular school system. On-the-job training was excluded. There has been very little change in the definition since, except the additions of kindergarten in 1960 and pre-kindergarten in 1970.

The age range for which enrollment data have been obtained and published has varied over the censuses. Information on enrollment was recorded for persons of all ages in 1930, 1940, and 1970 through 1990; for persons under age 30 in 1950; and for persons 5 to 34 in 1960. Published enrollment figures refer to persons 5 to 20 years old in the 1930 census, 5 to 24 in 1940, 5 to 29 in 1950, 5 to 34 in 1960, 3 to 34 in 1970, and 3 years and over in 1980 and 1990. This growth in the age group whose enrollment was reported reflects increased interest in the number of children in preprimary schools and in the number of older persons attending colleges and universities.

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

Type of school was first introduced in the 1960 census, where a separate question asked the enrolled persons whether they were in a "public" or "private" school. Since the 1970 census, the type of school was incorporated into the response categories for the enrollment question and the terms were changed to "public," "parochial," and "other private." In the 1980 census, "private, church related" and "private, not church related" replaced "parochial" and "other private."

Grade of enrollment was first available in the 1950 census, where it was obtained from responses to the question on highest grade of school completed. Enumerators were instructed that "for a person still in school, the last grade completed will be the grade preceding the one in which he or she was now enrolled." From 1960 to 1980, grade of enrollment was obtained from the highest grade attended in the two-part question used to measure educational attainment. (For more information, see the discussion under "Educational Attainment.") The form of the question from which level of enrollment was derived in the 1990 census most closely corresponds to the question used in 1950.

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

## SELF-CARE LIMITATION STATUS

The data on self-care limitation status were derived from answers to questionnaire item 19b, which was asked of all persons 15 years old and over. Persons were identified as having a self-care limitation, if they had a health condition that had lasted for 6 or more months and which made it difficult to take care of their own personal needs, such as dressing, bathing, or getting around inside the home.

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

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

## SEX

The data on sex were derived from answers to questionnaire item 3, which was asked of all persons. For most cases in which sex was not reported, it was

determined by the appropriate entry from the person's given name and household relationship. Otherwise, sex was imputed according to the relationship to the householder and the age and marital status of the person. For more information on imputation, see Appendix C, Accuracy of the Data.

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

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

## VETERAN STATUS

Data on veteran status, period of military service, and years of military service were derived from questionnaire item 17.

**Veteran Status**—The data on veteran status were derived from responses to questions 17a and 17b. The term "active duty" refers to active service in the Armed Forces of the United States in the Army, Navy, Air Force, Marine Corps, or Coast Guard and to service as a Merchant Marine Seaman during World War II; it does not include active duty in the military Reserves or National Guard for the 4-6 months of initial training or yearly summer camps. For census data products, a "civilian veteran" is a person 16 years old or over who has served (even for a short time) but is not now serving on active duty in the U.S. Army, Navy, Air Force, Marine Corps, or the Coast Guard, or who served as a Merchant Marine seaman during World War II. Persons who served in the National Guard or military Reserves are classified as veterans only if they were ever called up for active duty not counting the 4-6 months duty for initial training or yearly summer camps. All other civilians 16 years old and over are classified as nonveterans. The military Reserves consists of the reserve branches of the U.S. Army, Navy, Air Force, Marine Corps, and Coast Guard.

**Period of Military Service**—Persons who indicated in question 17a that they had served on active duty, or were now on active duty, were asked to indicate in question 17c the period or periods in which they served. Persons serving in at least one wartime period were classified in their most recent wartime period. For example, persons who served both during the Korean conflict and the post-Korean peacetime era between February 1955 and July 1964 were classified in one of the two "Korean conflict" categories. If the same person had also served during the Vietnam era, he or she would instead be included in the "Vietnam era and Korean conflict" category. The responses were edited to eliminate inconsistencies between reported period(s)

of service and the age of the person and to cancel out reported combinations of periods containing unreasonable gaps (for example, a person could not serve during World War I and the Korean conflict without serving during World War II). Note that the period of service categories shown in this report are mutually exclusive.

**Years of Military Service**—Persons who indicated in question 17a that they had served on active duty, or were now on active duty, were asked to report the total number of years of active-duty military service in question 17d. The data were edited for consistency with responses to question 17c (Period of Service) and with the age of the person.

**Limitation of the Data**—There may be a tendency for the following persons to report erroneously that they served on active duty in the Armed Forces: (a) persons who served in the National Guard or military Reserves but were never called to active duty; (b) civilian employees or volunteers for the USO, Red Cross, or the Department of Defense (or its predecessor Departments, War and Navy); and (c) employees of the Merchant Marine or Public Health Service. There may also be a tendency for persons to erroneously round up months to the nearest year in question 17d (for example, persons with 1 year 8 months of active duty military service may mistakenly report "2 years").

**Comparability**—Since census data on veterans are based on self-reported responses, they may differ from data from other sources such as administrative records of the Department of Defense. Census data may also differ from Veterans Administration data on the benefits-eligible population, since factors determining eligibility for veterans benefits differ from rules for veteran status classification in the census. The 1990 census was the first census to collect data on veteran status for the Pacific Outlying Areas.

## VOCATIONAL TRAINING

The data on vocational training were derived from responses to questionnaire item 11b. Vocational training is a school program designed to prepare a person for work in a specific occupational field. Persons were counted as having completed vocational training if they completed the requirements for a vocational training program at a trade school, business school, hospital, some other kind of school for occupational training, or place of work.

Enumerator instructions differentiated vocational training from academic training and on-the-job training. The vocational training could be in such vocational fields as carpentry, electronics, nursing, or accounting if a bachelor's degree would not be granted for the training. Training at place of work included programs designed to

teach new skills. Instruction could be provided by a company teacher or other vocational teacher, at the company or at another location. On-the-job training was not to be included as vocational training since its purpose is to provide instruction for specific job duties. Vocational training in high school was included if it was in an organized program of study and was intended to provide a marketable skill upon graduation. Individual courses for personal enrichment, such as a single typing course, were not vocational training. Job Corp training and correspondence courses were included. Also, among training not included were college courses applicable towards a bachelor's degree, single courses not part of an organized program, on-the-job training, and Armed Forces basic training. Persons who completed a program were asked to report whether the training was in the area in which they lived (for example, Guam, if living in Guam; and American Samoa, if living in American Samoa) or outside the area. This portion of the question was new in 1990.

**Comparability**—The vocational training question was first asked in the census in 1970. Although the basic question has remained nearly the same, different additional questions were included in each census. In 1970, an additional question was asked about major field of vocational training. In 1980, an additional question asked about the specific type of school. In 1990 the respondent was asked where geographically the course was taken (in this area, not in this area). The question was in the U.S. census in 1970 only.

## WORK DISABILITY STATUS

The data on work disability were derived from answers to questionnaire item 18, which was asked of all persons 15 years old and over. Persons were identified as having a work disability if they had a health condition that had lasted 6 or more months and which limited the kind or amount of work they could do at a job or business. A person was limited in the kind of work he or she could do if the person had a health condition which restricted his or her choice of jobs. A person was limited in the amount of work if he or she was not able to work full-time. Persons with a work disability were further classified as "Prevented from working" or "Not prevented from working."

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

**Comparability**—This was the first time that a question on work disability was included in the census.

## WORK STATUS IN 1989

The data on work status in 1989 were derived from answers to questionnaire item 31.

**Work Status in 1989**—Persons 16 years old and over who worked 1 or more weeks according to the criteria described below are classified as "Worked in 1989"; all other persons 16 years old and over are classified as "Did not work in 1989." Some tabulations showing work status in 1989 include 15 years olds; these persons are classified as "Did not work in 1989" by definition.

**Weeks Worked in 1989**—The data on weeks worked in 1989 were derived from answers to questionnaire item 31b. Question 31b (Weeks worked in 1989) was asked of persons who indicated in Question 31a that they worked in 1989.

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

**Usual Hours Worked per Week Worked in 1989**—The data on usual hours worked per week worked in 1989 were derived from responses to questionnaire item 31c. This question was asked of persons 16 years and over who indicated that they worked in 1989.

The data pertain to the number of hours a person usually worked during the weeks worked in 1989. The respondent was to report the number of hours worked per week in the majority of the weeks he or she worked in 1989. If the hours worked per week varied considerably during 1989, the respondent was to report an approximate average of the hours worked per week. The statistics on usual hours worked per week worked in 1989 are not necessarily related to the data on actual hours worked during the census reference week (question 21b).

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

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

**Number of Workers in Family in 1989**—The term "Worker" as used for these data is defined according to the criteria described in the section on "Work Status in 1989."

**Limitation of the Data**—It is probable that the number of persons who worked in 1989 and the number of weeks worked are understated since there is some tendency for respondents to forget intermittent or short periods of employment or to exclude weeks worked without pay. There may also be a tendency for persons

not to include weeks of paid vacation among their weeks worked; one result may be that the census figures may understate the number of persons who worked "50-52 weeks."

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

In 1970, persons responded to the question on weeks worked by indicating 1 of 6 weeks-worked intervals. In 1980 and 1990, persons were asked to provide the specific number of weeks they worked.

## YEAR OF ENTRY

The data on year of entry were derived from answers to questionnaire item 9, which was asked of all persons. The question, "When did this person come to this area to stay?" was asked of persons who indicated in the citizenship question that they were not born in the area. (For more information, see the discussion under "Citizenship.")

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

**Limitation of the Data**—The census questions on citizenship and year of entry were not designed to measure the degree of permanence of residence in the area. The phrase, "to stay" was used to obtain the year in which the person became a resident of the area. Although the respondent was directed to indicate the year he or she entered the area "to stay," it was difficult to ensure that respondents interpreted the phrase correctly.

**Comparability**—In 1980, the question on year of entry included nine arrival times and was asked only of the foreign-born population. In 1990, persons reported the actual year of entry.

## HOUSING CHARACTERISTICS

### LIVING QUARTERS

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

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

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

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

In American Samoa, extended families make use of different types of living arrangements. Additional guidelines were provided to the enumerators to help them determine whether the living quarters of the extended family consisted of only one housing unit with various structures, or various housing units. Under one type of living arrangement, the extended family occupies several structures (called *fales*) where the members of the extended family live. If the family members eat most of their meals together in one of these houses (*fales*), then all of the houses (*fales*) combined constitute one housing unit. However, if some or all of the family members eat their meals separately in their own structure (house, *fale*) those family members live in a separate living quarters and each of the structures they occupy is considered to be a separate housing unit. (For more information, see the discussion under "Households by Number of Structures Occupied.")

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

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

**Vacant Housing Units**—A housing unit is vacant if no one is living in it at the time of enumeration, unless its occupants are only temporarily absent. Units temporarily occupied at the time of enumeration entirely by persons who have a usual residence elsewhere are also classified as vacant.

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

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

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

**Staff Living Quarters**—The living quarters occupied by staff personnel within any group quarters are separate housing units if they satisfy the housing unit criteria of separateness and direct access; otherwise, they are considered group quarters.

**Comparability**—There was no change in the housing unit definition between 1980 and 1990.

## AIR CONDITIONING

The data on air conditioning were obtained from questionnaire item H15, which was asked at both occupied and vacant housing units. Air conditioning is defined as the cooling of air by a refrigeration unit. It does not include evaporative coolers, fans, or blowers, which are not connected to a refrigeration unit; however, it does include heat pumps. A central system is an installation which air conditions a number of rooms. In an apartment building, each apartment may have its own central system, or there may be several systems, each providing central air conditioning for a group of apartments. A central system with individual room controls is a "central air-conditioning system." A "room unit" is an individual air conditioner which is installed in a window or an outside wall and is generally intended to cool one room, although it may sometimes be used to cool more than one room.

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

## BATHTUB OR SHOWER

The data on bathtub or shower were obtained from questionnaire item H10c, which was asked at both occupied and vacant housing units. Bathtub or shower was counted only if the equipment was permanently connected to piped running water. Portable bathtubs were not included in the bathtub or shower category.

**Comparability**—In Guam, the data on bathtub or shower were collected for the first time in 1960, and since 1970 for all other Pacific Outlying Areas. In 1980, the data were shown separately as well as combined with data on water supply and flush toilet to identify the presence of complete plumbing facilities.

## BATTERY OPERATED RADIO

The data on battery operated radios were obtained from questionnaire item H13, which was asked at occupied housing units. Included as battery operated radios are car radios, transistors, and other battery operated sets in working order or needing only a new battery for operation.

**Comparability**—Data on radios were collected for the first time in 1980. However, in 1980, data on radios included all types of radio sets, either electric or battery operated. In 1990, only battery operated radios were considered.

## BEDROOMS

The data on bedrooms were obtained from questionnaire item H9, which was asked at both occupied and vacant housing units. The number of bedrooms is the count of rooms designed to be used as bedrooms; that is, the number of rooms that would be listed as bedrooms if the house or apartment were on the market for sale or for rent. Included are all rooms intended to be used as bedrooms even if they currently are being used for some other purpose. A housing unit consisting of only one room, such as a one-room efficiency apartment (or also a *fale*, in American Samoa), is classified, by definition, as having no bedroom.

**Comparability**—In Guam, data for bedrooms were collected for the first time in 1960, and since 1980 for the other Pacific Outlying Areas. In 1980, data for bedrooms were shown only for year-round housing units. In 1990, data are shown for all housing units. In 1980 and 1960 censuses, a room was defined as a bedroom if it was used mainly for sleeping even if also used for other purposes. Rooms that were designed to be used as bedrooms but used mainly for other purposes were not considered to be bedrooms. The 1990 definition counts rooms designed to be used as bedrooms. In 1970, no data were collected on bedrooms for any of the Pacific Outlying Areas. A distribution of housing units by number of bedrooms calculated from data collected in a 1986 stateside test showed virtually no differences in the data obtained from the two versions of the definition except in the two bedroom category, where the previous "use" definition showed a slightly lower proportion of units.

## BOARDED-UP STATUS

The data on boarded-up status were obtained from questionnaire item C2 and was determined for all vacant units. Boarded-up units have windows and doors covered by wood, metal, or similar materials to protect the interior and to prevent entry into the building. A single-unit structure, a unit in a multi-unit structure, or an entire multi-unit structure may be boarded-up in this way. For certain census data products, boarded-up units are shown only for units in the "Other vacant" category.

**Comparability**—Data on boarded-up status were collected for the first time in 1980 and were shown only for year-round vacant housing units. In 1990, data are shown for all vacant housing units.

## BUSINESS ON PROPERTY

The data on business on property were obtained from questionnaire item H24, which was asked at all occupied and vacant one-family houses and mobile

homes. This question is used to exclude owner-occupied one-family houses with business or medical offices on the property from certain statistics on financial characteristics.

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

**Comparability**—In Guam, the data on business on property were collected for the first time in 1960, and since 1970 for all other Pacific Outlying Areas.

## CONDOMINIUM FEE

The data on condominium fee were obtained from questionnaire item H30, which was asked at owner-occupied condominiums in Guam, the Northern Mariana Islands, and Palau. These data were not collected for American Samoa. A condominium fee is normally charged monthly to the owners of the individual condominium units by the condominium owners association to cover operating, maintenance, administrative, and improvement costs of the common property, (grounds, halls, lobby, parking areas, laundry rooms, swimming pool, etc). The costs for utilities and/ or fuels may be included in the condominium fee if the units do not have separate meters.

Data on condominium fees may include real estate tax and/ or insurance payments for the common property, but do not include real estate taxes or fire, hazard, and flood insurance for the individual unit already reported in questions H26 and H27.

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

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

**Comparability**—This item is new in 1990. It was not asked in American Samoa.

## CONDOMINIUM STATUS

The data on condominium housing units were obtained from questionnaire item H20, which was asked at both occupied and vacant housing units in Guam, the Northern Mariana Islands, and Palau. These data were not

collected for American Samoa. Condominium is a type of ownership that enables a person to own an apartment or house in a development of similarly owned units and to hold a common or joint ownership in some or all of the common areas and facilities such as land, roof, hallways, entrances, elevators, swimming pool, etc. Condominiums may be single-family houses or units in apartment buildings. A condominium unit need not be occupied by the owner to be counted as such. A unit classified as "mobile home or trailer" or "other" (see discussion on "Units in Structure") cannot be a condominium unit.

**Limitation of the Data**—Testing done in the United States prior to the 1980 and 1990 censuses indicated that the number of condominiums may be slightly overstated. The same situation may also be true for these Pacific Outlying Areas.

**Comparability**—This item is new in 1990. It was not asked in American Samoa.

## CONTRACT RENT

The data on contract rent (also referred to as "rent asked" for vacant units) were obtained from questionnaire item H23, which was asked at all occupied housing units that were rented for cash rent and all vacant housing units that were for rent at the time of enumeration.

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

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

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

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

If a renter receives payments from lodgers or roomers who are listed as members of the household, the respondent was instructed to report the rent without

deduction for any payments received from the lodgers or roomers. The respondent was instructed to report the rent agreed to or contracted for even if paid by someone else such as friends or relatives living elsewhere, or a church or agency.

**Limitation of the Data**—In 1980, contract rent for vacant units had high allocation rates.

**Comparability**—In Guam, data on contract rent were collected for the first time in 1960, and since 1970 for all other Pacific Outlying Areas. There was no change in the contract rent definition between 1980 and 1990.

## COOKING FACILITIES

The data on cooking facilities were obtained from questionnaire items H18a and H18b, which were asked at both occupied and vacant housing units. Main cooking facilities are the ones that are used most often for preparation of meals. They can be located either inside or outside the building. Cooking facilities are classified as (1) Electric stove; (2) Kerosene stove; (3) Gas stove; (4) Microwave oven and non-portable burners; (5) Microwave oven only; or (6) Other, depending upon the type of stove used for cooking. The category "Other" includes a hotplate, fireplace, or any other type of cooking facility not listed separately. "No cooking facilities" includes those units with no cooking facilities available either inside or outside the building.

**Comparability**—In Guam, data on cooking facilities were collected for the first time in 1960, and since 1970 for the other Pacific Outlying Areas. In 1980, the data for cooking facilities were shown for year-round and occupied housing units. In 1990, data are shown for all housing units. Also, "Microwave oven and non-portable burners" and "Microwave oven only" were added to the cooking facilities categories.

## DURATION OF VACANCY

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

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

**Comparability**—Data on duration of vacancy were collected for the first time in 1980 and were shown only for year-round vacant housing units. In 1990, data are shown for all vacant housing units.

## **ELECTRIC POWER**

The data on electric power were obtained from questionnaire item H11, which was asked at both occupied and vacant housing units. Those units equipped with electric power even though the current may be shut off because the unit is vacant or because the electric bills have not been paid were considered to have electric power.

**Comparability**—In 1970, a question was asked on electric lighting. In 1980, the wording was changed to electric power and also inquired about the supplier and source. Also, in 1980, data for electric power were shown only for year-round housing units. In 1990, data are shown for all housing units.

## **GROSS RENT**

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

**Comparability**—In Guam, data on gross rent were collected in 1960. Only contract rent was collected for all Pacific Outlying Areas in 1970. Data on gross rent have been collected since 1980 for all Pacific Outlying Areas.

## **GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989**

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

## **HOUSEHOLDS BY NUMBER OF STRUCTURES OCCUPIED**

The data for households by number of structures occupied were obtained from questionnaire item H2, categories 4 and 5, which were only asked at both

occupied and vacant housing units in American Samoa. This item is included to identify the traditional Samoan extended family living arrangement where household members may occupy more than one structure (sometimes referred to as *fales*.) The category "2 houses" includes those living quarters consisting of 2 structures, both of which are occupied by only one household. The category "3 or more houses" includes those living quarters consisting of 3 or more structures all of which are occupied by only one household.

**Comparability**—This part of the item is new in 1990. It was asked only in American Samoa.

## **INSURANCE FOR FIRE, HAZARD, AND FLOOD**

The data on fire, hazard, and flood insurance were obtained from questionnaire item H27, which was asked at owner-occupied one-family houses, condominiums, and mobile homes. The statistics for this item refer to the annual premium for fire, hazard, and flood insurance on the property (land and buildings); that is, policies that protect the property and its contents against loss due to damage by fire, lightning, winds, hail, flood, explosion, and so on. In American Samoa, the statistics refer to the annual premium for fire, hazard, and flood insurance on the building only.

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

The payment for fire, hazard, and flood insurance is added to payments for real estate taxes (except in American Samoa where data on real estate taxes are not applicable), utilities, fuels, and mortgages (both first and junior mortgages and home equity loans) to derive "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989."

A separate question (H28d) determines whether insurance premiums are included in the mortgage payment to the lender(s). This makes it possible to avoid counting these premiums twice in the computations.

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

## KITCHEN FACILITIES

Data on kitchen facilities were obtained from questionnaire items H18a, H18b, H18c, and H18d which were asked at both occupied and vacant housing units. A unit has complete kitchen facilities when cooking facilities (electric, kerosene, or gas stove, microwave oven and non-portable burners, or cookstove), refrigerator, and a sink with piped water are located in the same building as the living quarters being enumerated. They need not be in the same room. Lacking complete kitchen facilities includes those conditions when all three specified kitchen facilities are present, but the equipment is located in a different building, unless the building is a *fale* that together with other *fales* constitute one housing unit (as in American Samoa); some, but not all of the facilities are present; or none of the three specified kitchen facilities are present in the same building as the living quarters being enumerated.

**Comparability**—Data on complete kitchen facilities were collected for the first time in 1970. In 1970 and 1980, data for complete kitchen facilities were shown only for year-round housing units. In 1990, data are shown for all housing units.

## MORTGAGE PAYMENT

The data on mortgage payment were obtained from questionnaire item H28b, which was asked at owner-occupied one-family houses, condominiums, and mobile homes. Question H28b provides the regular monthly amount required to be paid the lender for the first mortgage (deed of trust, contract to purchase, or similar debt) on the property. Amounts are included even if the payments are delinquent or paid by someone else. The amounts reported are included in the computation of "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989" for units with a mortgage.

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

**Comparability**—In Guam and the Northern Mariana Islands, information on mortgage payment was collected for the first time in 1980. It was collected only at owner-occupied one-family houses. Excluded were mobile homes, condominiums, houses with a business or medical office on the property, and housing units in multi-unit

buildings. In 1990, the questions on monthly mortgage payments were asked of all owner-occupied one-family houses, mobile homes, condominiums, and one-family houses with a business or medical office.

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

In American Samoa and Palau, information on mortgage payment was collected for the first time in 1990.

## MORTGAGE STATUS

The data on mortgage status were obtained from questionnaire items H28a and H29a, which were asked at owner-occupied one-family houses, condominiums, and mobile homes. "Mortgage" refers to all forms of debt where the property is pledged as security for repayment of the debt. It includes such debt instruments as deeds of trust, trust deeds, contracts to purchase, land contracts, junior mortgages and home equity loans.

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

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

**Comparability**—In Guam and the Northern Mariana Islands, information on mortgage status was collected for the first time in 1980. It was collected only at owner-occupied one-family houses. Excluded were mobile homes, condominiums, houses with a business or medical office, and housing units in multi-unit buildings. In 1990, the questions on monthly mortgage status were asked of all owner-occupied one-family houses, mobile homes, condominiums, and one-family houses with a business or medical office.

In American Samoa and Palau, information on mortgage status was collected for the first time in 1990.

## PERSONS IN UNIT

All persons occupying the housing unit are counted, including the householder, occupants related to the householder, and lodgers, roomers, boarders, and so forth.

The data on "persons in unit" show the number of housing units occupied by the specified number of persons. The phrase "persons in unit" is used for housing tabulations, "persons in households" for population items.

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

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

### PERSONS PER ROOM

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

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

### PLUMBING FACILITIES

The data on plumbing facilities were obtained from questionnaire items H10a, H10c, and H10d, which were asked at both occupied and vacant housing units. In Guam only, a unit has complete plumbing facilities when piped water (either hot or cold), a flush toilet, and a bathtub or shower are located in the unit being enumerated. Lacking complete plumbing facilities includes those conditions when all three facilities are present but the equipment is located outside the unit, or when some but not all of the facilities is present, or none of the facilities is present. In the Northern Mariana Islands, American Samoa, and Palau, a unit has complete plumbing facilities when the same three facilities are present but they may be either in the unit being enumerated or inside the building in which the unit is located.

**Comparability**—In Guam, data on plumbing facilities were tabulated for the first time in 1960, and since 1970 for all other Pacific Outlying Areas. In 1970 and 1980,

the data were shown only for year-round housing units. In 1980, plumbing was considered to be complete if all three facilities were located in the same building as the unit being enumerated, for all areas. In 1990, these facilities must be located in the unit being enumerated for Guam only and data are shown for all housing units.

### POVERTY STATUS OF HOUSEHOLDS IN 1989

The data on poverty status of households were derived from answers to the income data. Households are classified below the poverty level when the total 1989 income of the family or of the non-family householder is below the appropriate poverty threshold. The income of persons living in the household who are unrelated to the householder is not considered when determining the poverty status of a household, nor does their presence affect the household size in determining the appropriate poverty threshold. The poverty thresholds vary depending upon three criteria: size of family, number of children, and age of the family householder or unrelated individual for one- or two-person households.

Poverty thresholds for the United States are computed on a national basis only. No attempt has been made to adjust thresholds for regional, State, or local variations in the cost of living. The thresholds used for Guam, the Northern Mariana Islands, American Samoa, and Palau are the same as those used for the United States. (For more information, see the discussion of "Poverty Status in 1989" and "Income in 1989" under Population Characteristics.)

### REAL ESTATE TAXES

The data on real estate taxes were obtained from questionnaire item H26, which was asked at owner-occupied one-family houses, condominiums, and mobile homes in Guam, the Northern Mariana Islands, and Palau only. The statistics from this question refer to the total amount of all real estate taxes on the entire property (land and buildings) payable in 1989 to all taxing jurisdictions, including special assessments, school taxes, county taxes, and so forth.

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

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

question (H28c) determines whether real estate taxes are included in the mortgage payment to the lender(s). This makes it possible to avoid counting taxes twice in the computations.

**Comparability**—In Guam and the Northern Mariana Islands, data for real estate taxes were collected for the first time in 1980. The question was asked only at owner-occupied one-family houses. Excluded were mobile homes or trailers, condominiums, houses with a business or medical office on the property, and housing units in multi-unit buildings. In 1990, the question was asked of all one-family owner-occupied houses, mobile homes, condominiums, and one-family houses with a business or medical office on the property. In Palau, information on real estate taxes was collected for the first time in 1990. No data on real estate taxes were collected in American Samoa.

## REFRIGERATOR

The data on refrigerators were obtained from questionnaire item H18c, which was asked at both occupied and vacant housing units. The refrigerator may be located in the housing unit or in a kitchen elsewhere in the building where the house is located. The category "No refrigerator" consists of units utilizing any type of cooling system other than an electric or gas refrigerator, or units that do not have a refrigerator.

**Comparability**—In Guam, data on refrigerators were collected for the first time in 1960, and since 1970 for all other Pacific Outlying Areas. In 1980, the data were shown only for occupied housing units. In 1990, data are shown for all housing units. Also, the question asks if there is an electric or gas refrigerator, replacing the mechanical and ice categories.

## ROOMS

The data on rooms were obtained from questionnaire item H8, which was asked at both occupied and vacant housing units. The statistics on rooms are in terms of the number of housing units with a specified number of rooms. The intent of this question is to count the number of whole rooms used for living purposes.

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

For households in American Samoa that occupy two or more structures, a vacant *fale* intended to be occupied by guests is considered to be a room of the Matai's *fale*. The matai is the highest ranking person in the family.

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

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

**Comparability**—Data on rooms were collected for the first time in 1970. In 1970 and 1980, data were shown only for year-round housing units. In 1990, data are shown for all housing units.

## SECOND OR JUNIOR MORTGAGE PAYMENT

The data on second or junior mortgage payments were obtained from questionnaire items H29a and H29b, which were asked at owner-occupied one-family houses, condominiums, and mobile homes. Question H29a asks whether a second or junior mortgage or a home equity loan exists on the property. Question H29b provides the regular monthly amount required to be paid to the lender on all second or junior mortgages and home equity loans. Amounts are included even if the payments are delinquent or paid by someone else. The amounts reported are included in the computation of "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989" for units with a mortgage.

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

If the respondent answered that no first mortgage existed, but a second mortgage did (as in the above case with a home equity loan), computer edit assigned the unit a first mortgage and made the first mortgage

monthly payment the amount reported in the second mortgage. The second mortgage data were then made "No" in question H29a and blank in question H29b.

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

## SELECTED MONTHLY OWNER COSTS

The data on selected monthly owner costs were obtained from questionnaire items H21a-H21d, H26, H27, H28a-H28d, H29a-H29b, and H30, which were asked at owner-occupied one-family houses, condominiums, and mobile homes. Selected monthly owner costs is the sum of payments for mortgages, deeds of trust, contracts to purchase, or similar debts on the property (including payments for the first mortgage, second or junior mortgages, and home equity loans); real estate taxes (except in American Samoa); fire, hazard, and flood insurance on the property; utilities (electricity, gas, and water); fuels (oil, coal, kerosene, wood, etc.); and it also includes, where appropriate, the monthly condominium fee for condominiums (except in American Samoa).

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

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

**Comparability**—In Guam and the Northern Mariana Islands, the components of selected monthly owner costs were collected for the first time in 1980. In American Samoa and Palau, information on selected monthly owner costs was collected for the first time in 1990. The 1990 tabulations of selected monthly owner costs for specified owner-occupied housing units are virtually identical to 1980. The primary difference was the amounts of the first and second mortgages were collected in separate questions in 1990, while the amounts were collected in a single question in 1980. The component parts of the item were tabulated for mobile homes and condominiums for the first time in 1990.

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

The data for selected monthly owner costs as a percentage of household income in 1989 is the computed ratio of selected monthly owner costs to monthly

household income in 1989. The ratio was computed separately for each unit and rounded to the nearest whole percentage.

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

**Comparability**—In Guam and the Northern Mariana Islands, the components of selected monthly owner costs were collected for the first time in 1980. In American Samoa and Palau, information on selected monthly owner costs was collected for the first time in 1990. The tabulations of "Selected Monthly Owner Costs as a Percentage of Household Income" for specified owner-occupied housing units are included in census reports for the first time in 1990.

## SEWAGE DISPOSAL

The data on sewage disposal were obtained from questionnaire item H17, which was asked at both occupied and vacant housing units. Housing units are either connected to a public sewer, to a septic tank or cesspool, or they dispose of sewage by other means. A public sewer may be operated by a government body or by a private organization. A housing unit is considered to be connected to a septic tank or cesspool when the unit is provided with an underground pit or tank for sewage disposal. The category "Other means" includes housing units which dispose of sewage in some other way.

**Comparability**—Data on sewage disposal were collected for the first time in 1980 and were shown only for year-round housing units. In 1990, data are shown for all housing units.

## SINK WITH PIPED WATER

The data on sink with piped water were obtained from questionnaire item H18d, which was asked at both occupied and vacant housing units. A sink with piped water must be inside the building where the housing unit being enumerated is located for the unit to be classified as having a sink with piped water.

**Comparability**—Data on sink with piped water were collected for the first time for all Pacific Outlying Areas in 1990.

## SOURCE OF WATER

The data on source of water were obtained from questionnaire item H16, which was asked at both occupied and vacant housing units. Housing units may

receive their water supply from a number of sources. The source may be in the building, in some other place on the property, or elsewhere. In Guam, the Northern Mariana Islands, and Palau, a common source supplying water through underground pipes to five or more units is classified as (1) "A public (government) system only." The water may be supplied by a municipal water system, water district, water company, etc., or it may be obtained from a well which supplies water to five or more housing units. A source of water may be (2) "A public (government) system and catchment" if there is running water which comes from a public (government) system and a catchment is also used. If the water is supplied from a well on the property or a neighboring property serving 4 or fewer housing units, the units are classified as having water supplied by (4) "An individual well." Well water that is hand drawn, wind drawn, or engine drawn; piped or not piped; stored in tanks or used directly from the well is included. A source of water may be (5) "A catchment, tanks, or drums only" if the only source of water is a catchment, tanks, or drums, in which rainwater is collected. (6) "A public standpipe or street hydrant" is an elevated tank or a vertical storage cylinder or a street hydrant which is connected to a public system from which nearby residents draw water. The category (7) "Some other source..." includes water obtained privately from springs, rivers, irrigation canals, creeks or other sources that are not listed.

In American Samoa, there are no public standpipes or street hydrants. Instead, there may be village water systems. (3) "A village water system only" is defined as running water supplied through underground pipes by a village water system or as water supplied by a well that is maintained by the village

**Comparability**—Data on source of water were collected for the first time in 1970. In 1970 and 1980, data were shown only for year-round housing units. In 1990, data are shown for all housing units.

## TELEPHONE IN HOUSING UNIT

The data on telephones were obtained from questionnaire item H12, which was asked at occupied housing units. A telephone must be inside the house or apartment for the unit to be classified as having a telephone. Units where the respondent uses a telephone located inside the building but not in the respondent's living quarters are classified as having no telephone.

**Comparability**—Data on telephones were collected for the first time in 1980. There was no change in the telephone in housing unit definition between 1980 and 1990.

## TELEVISION SET

The data on television sets were obtained from questionnaire item H14, which was asked at occupied

housing units. The statistics on television sets are in terms of the number of households having a television set in the living quarters. The set should be in working order or being repaired. Included are floor, table, built-in, or portable models, or combinations with radios or record players whether "black and white" or "color." If the household has no television set or only has television sets elsewhere other than in the housing unit, it is classified as having "no television set."

**Comparability**—Data on television sets were collected for the first time in 1980. There was no change in the television set definition between 1980 and 1990.

## TENURE

The data for tenure were obtained from questionnaire item H22, which was asked at all occupied housing units. All occupied housing units are classified as either owner occupied or renter occupied.

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

A housing unit is "Owned by you or someone in this household free and clear (without a mortgage)" if there is no mortgage or other similar debt on the house, apartment, or mobile home including units built on leased land if the unit is owned outright without a mortgage.

**Renter Occupied**—All occupied housing units which are not owner occupied, whether they are rented for cash rent or occupied without payment of cash rent, are classified as renter occupied. A housing unit is "Rented for cash rent" if any money rent is paid or contracted for. The rent may be paid by persons who are not living in the unit, such as a relative or friend living elsewhere; or it may be paid by a private company or organization, for example, a cannery or welfare agency. "No cash rent" units are separately identified in the rent tabulations. Such units are generally provided free by friends or relatives or in exchange for services such as resident manager, caretaker, members of the clergy, or tenant farmer. Housing units on military bases are also classified in the "No cash rent" category.

**Comparability**—In Guam, data on tenure were collected for the first time in 1960, and since 1970 for all other Pacific Outlying Areas. In 1970, the question on

tenure also included a category for condominium and cooperative ownership. In 1980, condominium units and cooperatives were dropped from the tenure item. For 1990, the response categories were expanded to allow the respondent to report whether the unit was owned with a mortgage or free and clear (without a mortgage). The distinction between units owned with a mortgage and units owned free and clear has been added in 1990 to improve the count of owner-occupied units. Research done in the United States after the 1980 census indicated some respondents did not consider their units owned if they had a mortgage.

## TOILET FACILITIES

The data on toilet facilities were obtained from questionnaire items H10d and H10e, which were asked at both occupied and vacant housing units. A flush toilet is connected to piped water and is emptied into a main sewer, a septic tank, or a cesspool. If the unit did not have a flush toilet, the respondent was asked to identify their type of toilet facilities as "Outhouse or privy" or "Other or none."

**Comparability**—In Guam, data on toilet facilities were collected for the first time in 1960, and since 1970 for the other Pacific Outlying Areas. In 1980, the data were not shown separately but were combined with data on water supply and bathtub or shower to determine the presence of complete plumbing facilities.

## TYPE OF MATERIAL USED FOR FOUNDATION

The data on type of material used for the foundation of the building were obtained from questionnaire item H6, which was asked at both occupied and vacant housing units. Housing units were classified according to the type of material used most in the construction of the foundation of the structure. The categories for types of materials used are: (1) "Concrete"; (2) "Wood pier or pilings"; or (3) "Other," for all types of construction materials which cannot be described by any of the other specific categories or if there is no foundation.

**Comparability**—Data on type of material used for foundation were collected for the first time in 1990.

## TYPE OF MATERIAL USED FOR OUTSIDE WALLS

The data on type of material used for the outside walls of the building were obtained from questionnaire item H4, which was asked at both occupied and vacant housing units. Housing units were classified according to the type of material used most in the construction of the outside walls of the structure. The categories for

types of materials used are: (1) "Poured concrete"; (2) "Concrete blocks," (the wall may be covered with plaster cement); (3) "Metal," including zinc, steel, tin, etc.; (4) "Wood," including woodboards, plywood, etc.; or (5) "Other," for all other types of construction materials which cannot be described by any of the specific categories. In American Samoa only, (6) "No walls" was added to account for units such as "fales," which are specific to American Samoa.

**Comparability**—In Guam, data on type of construction were collected in 1960. Materials for outside walls have been collected since 1980 for all Pacific Outlying Areas and were shown only for year-round housing units. In 1990, data are shown for all housing units and the category thatch was dropped from the questionnaire.

## TYPE OF MATERIAL USED FOR ROOF

The data on type of material used for the roof of the building were obtained from questionnaire item H5, which was asked at both occupied and vacant housing units. Housing units were classified according to the type of material used most in the construction of the roof of the structure. The categories for types of materials used are: (1) "Poured concrete"; (2) "Metal," including zinc, steel, tin, etc.; (3) "Wood," including woodboards, plywood, etc.; (4) "Thatch," including sugar cane leaves, palm or pandanus thatch, palm leaves, straw, etc.; or (5) "Other," for all other types of construction materials which cannot be described by any of the specific categories.

**Comparability**—Data on type of material used for roofs were collected for the first time in 1980 and were shown only for year-round housing units. In 1990, data are shown for all housing units.

## UNITS IN STRUCTURE

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

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

**1-Unit, Detached**—This is a 1-unit structure detached from any other structure; that is, with open space on all four sides. Such structures are considered detached

even if they have an adjoining shed or garage. A one-family house which contains a business is considered detached as long as the building has open space on all four sides. Mobile homes or trailers to which one or more permanent rooms have been added or built are also included.

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

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

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

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

In American Samoa, the term "house" refers to conventional western style houses as well as *fales*. For cases where a household occupies more than one structure, answer categories were provided to reflect the number of houses/ *fales*/structures comprising the living quarters.

In American Samoa, the definitions for "1-unit detached," "1-unit attached," and "other" are the same as for Guam, the Northern Mariana Islands, and Palau. There is no "mobile home or trailer" category. In addition, the following categories were included in American Samoa:

**2 or More Units**—These are units in structure containing 2 or more housing units, further categorized as units in structures with 2, 3 or 4, and 5 or more units.

**2 Houses**—This category includes those living quarters consisting of 2 structures both of which are occupied by only one household.

**3 or More Houses**—This category includes those living quarters consisting of 3 or more structures all of which are occupied by only one household.

**Comparability**—In Guam, data on units in structure were collected for the first time in 1960, and since 1970 for all other Pacific Outlying Areas. In 1970 and 1980,

data for units in structure were shown only for year-round housing units. In 1990, data are shown for all housing units. The category "Boat" was replaced in 1990 by the category "Other." The categories "2 houses" and "3 or more houses" are new for 1990 and appear only in American Samoa to identify traditional living arrangements.

## USUAL HOME ELSEWHERE

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

## UTILITIES

The data on utility costs were obtained from questionnaire items H21a through H21d, which were asked of occupied housing units.

Questions H21a through H21d asked for the average monthly cost of utilities (electricity, gas, water) and other fuels (oil, coal, wood, kerosene, etc.). They are included in the computation of "Gross Rent," "Gross Rent as a Percentage of Household Income in 1989," "Selected Monthly Owner Costs," and "Selected Monthly Owner Costs as a Percentage of Household Income in 1989."

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

**Limitation of the Data**—Caution should be exercised in using these data for direct analysis because costs are not reported for certain kinds of units such as renter-occupied units with all utilities included in the rent and in Guam, the Northern Mariana Islands, and Palau, owner-occupied condominium units with utilities included in the condominium fee.

**Comparability**—In Guam, the data on utility costs were collected for the first time in 1960 but were not collected in 1970. The data have been collected since 1980 for all Pacific Outlying Areas. In 1990, "...average monthly costs for gas" is asked separately from "oil, coal, kerosene, wood, etc." In 1980, "gas" was included in the "oil, coal, kerosene, wood, etc." category.

## VACANCY STATUS

The data on vacancy status were obtained from questionnaire item C1, which was completed by census enumerators. Vacancy status and other characteristics

of vacant units were determined by enumerators obtaining information from landlords, owners, neighbors, rental agents, and others. Vacant units are subdivided according to their housing market classification as follows:

**For Rent**—These are vacant units offered “for rent” and vacant units offered either “for rent” or “for sale.”

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

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

**For Seasonal, Recreational, or Occasional Use**—These are vacant units used or intended for use only in certain seasons or for weekend or other occasional use throughout the year. Seasonal units include those used for summer or winter sports or recreation, such as beach cottages and hunting cabins. Seasonal units may also include quarters for such workers as herders, loggers, fish packers, and other workers not employed in farm work. Interval ownership units, sometimes called shared ownership or time-sharing condominiums also are included here.

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

**Other Vacant**—If a vacant unit does not fall into any of the classifications specified above, it is classified as “other vacant.”

For example, this category includes units held for occupancy by a caretaker or janitor, and units held for personal reasons of the owner.

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

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

**Comparability**—Data on vacancy status were collected for the first time for Guam in 1960, and since 1970 for all other Pacific Outlying Areas. For 1990, the category “seasonal/ recreational/ occasional use” combined vacant units classified in 1980 as “seasonal or migratory” and “held for occasional use.”

## VALUE

The data on value (also referred to as “price asked” for vacant units) were obtained from questionnaire item H25, which was asked at one-family houses, condominiums, and mobile homes that were owned, being bought, or vacant for sale at the time of enumeration. In Guam, the Northern Mariana Islands, and Palau, value is the respondent’s estimate of how much the property (house and lot, mobile home and lot, or condominium unit) would sell for if it were for sale. If the house or mobile home was owned or being bought, but the land on which it sits was not, the respondent was asked to estimate the combined value of the house or mobile home and the land. For vacant units, value was the price asked for the property. In American Samoa, value was the respondent’s estimate of how much the housing unit only would sell for if it were for sale.

Specified owner-occupied and specified vacant-for-sale-only housing units include only one-family houses without a business or medical office on the property. The data for “specified” units exclude mobile homes, houses with a business or medical office, and housing units in multi-unit buildings.

**Comparability**—In Guam, data on value were collected for the first time in 1960, and since 1970 for all other Pacific Outlying Areas. In 1980, data on value of mobile homes were not collected. In 1990, the question was asked also of mobile homes.

## VEHICLES AVAILABLE

The data on vehicles available were obtained from questionnaire item H19, which was asked at occupied housing units. These data show the number of households with a specified number of passenger cars, vans, pickup or panel trucks of one-ton capacity or less kept at home and available for the use of household members. Vehicles rented or leased for one month or more, company vehicles, and police and government vehicles are included if kept at home and used for nonbusiness purposes. Dismantled or immobile vehicles are excluded. Vehicles kept at home but used only for business purposes also are excluded.

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

**Limitations of the Data**—The statistics do not measure the number of vehicles privately owned nor the number of households owning vehicles.

**Comparability**—Data on automobiles available were collected for these areas for the first time in 1980. There was no change in the vehicles available definition between 1980 and 1990.

## WATER SUPPLY

The data on water supply (also referred to as “piped water”) were obtained from questionnaire items H10a and H10b, which were asked at both occupied and vacant housing units. Piped water means a supply of water is available at a sink, wash basin, bathtub, or shower. If both hot and cold water were available, data on the type of energy used by the water heater were obtained. The types of energy identified are electricity, gas, solar, or other fuels. Hot water need not be supplied continuously. Hot water supplied by an electric faucet attachment at the kitchen sink, an electric shower attachment, etc., is not considered to be hot piped water.

Piped water may be located within the unit itself, or it may be in the hallway, or in a room used by several units in the building. It may even be necessary to go outdoors to reach that part of the building in which the piped water is located.

**Comparability**—In Guam, the data on water supply were collected for the first time in 1960, and since 1970 for all other Pacific Outlying Areas. In 1980, the data were shown only for year-round housing units and were shown separately by type of energy used to heat the water, as well as combined with data on bathtub or shower and flush toilet to determine the presence of complete plumbing facilities. In 1990, data are shown for all housing units and tabulations similar to 1980 are presented.

## YEAR HOUSEHOLDER MOVED INTO UNIT

The data on year householder moved into unit were obtained from questionnaire item H3, which was asked at occupied housing units. These data refer to the year of the latest move by the householder. If a householder moved back into a housing unit he or she previously occupied, the year of the latest move was reported. If the householder moved from one apartment to another within the same building, the year the householder moved into the present apartment was reported. The intent is to establish the year the present occupancy by the householder began. The year that the householder moved in is not necessarily the same year other members of the household moved, although in the great majority of cases an entire household moves at the same time.

**Comparability**—Data on year householder moved into unit were collected for these areas for the first time in 1980. For 1990, the response categories have been modified to accommodate moves during the 10-year period between 1980 and 1990.

## YEAR STRUCTURE BUILT

The data on year structure built were obtained from questionnaire item H7, which was asked at both occupied and vacant housing units. Data on year structure built refer to when the building was first constructed, not when it was remodeled, added to, or converted. In the case of a *sale*, the construction was considered to be completed when the foundation, pillar posts, and roof were in place. For housing units under construction which met the housing unit definition—that is, all exterior windows, doors, and final usable floors were in place—the category “1989 to March 1990” was used. For a houseboat or mobile home or trailer, the manufacturer’s model year was assumed to be the year built. The figures shown in census data products relate to the number of units built during the specified periods and still in existence at the time of enumeration.

**Median Year Structure Built**—The median divides the distribution into two equal parts. The median is rounded to the nearest calendar year. Median age of housing can be obtained by subtracting median year structure built from 1990. For example, if the median year structure built is 1957, the median age of housing in that area is 33 years (1990 minus 1957).

**Limitation of the Data**—Data on year structure built are more susceptible to errors of response and nonreporting than data on many other items since respondents must rely on their memory or on estimates of persons who have lived in the neighborhood a long time. Available evidence indicates there is underreporting in the older year built categories, especially those built in “1939 or earlier.” The introduction of the “Don’t know” category (see below the discussion on “Comparability”) may result in relatively higher allocation rates. Data users should refer to the discussion in Appendix C, Accuracy of the Data and also to the allocation tables.

**Comparability**—Data on year structure built were collected for these areas for the first time in 1970 and were shown only for year-round housing units through 1980. In 1990, data are shown for all housing units and also the response categories have been modified to accommodate units built during the 10-year period between 1980 and 1990. In 1990, the category “Don’t know” was added in an effort to minimize the response error mentioned in the paragraph above on limitation of the data.

## DERIVED MEASURES

Census data products include various derived measures such as medians, means, and percentages, as

well as certain rates and ratios. Derived measures which round to less than 0.1 are not shown but indicated as zero. In printed reports, zero is indicated by showing a dash (-).

### **Interpolation**

Interpolation is frequently used in calculating medians based on interval data and in approximating standard errors from tables. Linear interpolation is used to estimate values of a function between two known values.

### **Mean**

This measure represents an arithmetic average of a set of values. It is derived by dividing the sum of a group of numerical items (or aggregate) by the total number of items. Aggregates are used in computing mean values. For example, mean family income is obtained by dividing the aggregate of all income reported by persons in families by the total number of families. (Additional information on means and aggregates is included in the separate explanations of many population and housing subjects.)

### **Median**

This value represents the middle value in a distribution. The median divides the total frequency into two

equal parts: one-half of the cases fall below the median and one-half of the cases exceed the median. The median is computed on the basis of the distribution as tabulated, which is sometimes more detailed than the distribution shown in specific census publications and other data products.

In reports, if the median falls within the upper interval of the tabulation distribution, the median is shown as the initial value of the interval followed by a plus sign (+), if within the lower interval, the median is shown as the upper value of the category followed by a minus sign (-). For summary tape files, if the median falls within the upper or lower interval, it is set to a specified value. (Additional information on medians is included in the separate explanations of many population and housing subjects.)

### **Percentages, Rates, and Ratios**

These measures are frequently presented in census products to compare two numbers or two sets of measurements. These comparisons are made in two ways: (1) subtraction, which provides an absolute measure of the difference between two items, and (2) the quotient of two numbers, which provides a relative measure of difference.

## APPENDIX C. Notes on Selected Data Items

This section primarily contains explanations for the treatment of certain variables in PUMS, and should be used in conjunction with the data dictionary, Appendix B, and Appendix I.

### H6-7 Housing Weight

We are including weights for each housing unit. These weights can be summed to get estimates of specific housing unit characteristics. See Chapter 3 for a discussion on the proper use of these weights.

The Guam PUMS is self-weighting (e.g., the weight is the same for all records). Since individual weight variables are provided on PUMS, most estimates derived from PUMS tabulations can be checked for reasonableness against other 1990 Printed Reports, STFs, or microfiche produced from sample data. Users can take advantage of weighting procedures provided by the statistical packages or multiply their results by "10."

### H12-13 Number of Person Records Following This Housing Unit Record

Users interested in tabulating household size or the number of persons in the housing unit may use this item, provided that records for persons in group quarters are first screened out. Persons-in-group-quarters records are identified by codes of 1-2 in H14 (Group Quarters Institution) or by codes 001-002 in P10-12 (Relationship).

### H14 Group Quarters Institution

Because of disclosure concerns, the only characteristic that will be shown describing group quarters is whether it is an institutional or noninstitutional group quarters.

H43-82 and P109-149 Most economic items were topcoded. The criteria used was whether the topcode protected either 1/2 of 1% of the total universe or 3% of the cases with the characteristic. In most instances, we used the value that was more favorable to the user. In all topcoded situations, if there were at least 30 cases above the topcoded amount we provided the median of all values above the topcode. Pay close attention to the period covered by the estimate (some are monthly, others annual). A complete list of topcoded variables and respective medians is in the User Note chapter.

Appendix C: Notes on Selected Data Items (continued)

H121-126      Gross Rent and Gross Rent as a % of Household Income  
 and  
 H115-120      Selected Monthly Owners Costs and Selected Monthly Owners Costs as a % of HH Income.

These variables are calculated from the topcoded components, and, in those cases where original amounts were topcoded, either the topcode or the medians were used. In those situations, the proportion of income represented may not match distributions found on other products from sample data.

For those components which required monthly averages, we computed, and rounded the monthly average from the reported annual data.

The following Recodes are provided for the users convenience. They can be constructed from original data through manipulation of related items. See the data dictionary for values for items.

H88      Household Family Type  
 H89-93    Number of Related Children in Household  
 H94      Number of Persons over 65 in Household  
 H95      Number of Persons over 75 in Household  
 H96-97   Number of Related Persons in Household  
 H98      Workers in family in 1989  
 H99-104   Household Income  
 H105     Military Dependency  
 H106     Kitchen Facilities  
 H107     Plumbing Facilities  
 H108-113 Family Income  
 H114     Owner Occupied Housing Unit

Number      Title

P6-7    Person Weight

We are providing weights for each person in the housing unit. Estimates for characteristics are made by summing the weights for those persons with the characteristic. See Chapter 3 for a discussion on how to use the weights.

P14-15 Ethnicity Recode

For 1990 Guam PUMS, we are showing 19 ethnic origin codes. Check Appendix I for specific descriptions of these ethnic groups included in codes not separately identified here, (e.g., Chinese [706-709]).

VALUE	DESCRIPTION
11	Chamorro (822)
13	Palauan (824)
14	Chuukese (828)
17	Pohnpeian (827)
18	Yapese (829)

Appendix C: Notes on Selected Data Items (continued)

19	Other Pacific (800-899 but not those above)
21	Chinese (706-709)
22	Filipino (720)
23	Japanese (740-745)
24	Korean (750)
25	Other Asian (600-795 except those above)
26	White (924)
27	Black (903)
28	All other single ethnic types (except those above)
61	Chamorro and other (not Asian)
62	Asian and other (not Chamorro)
63	Chamorro and Asian
64	All other multiple ethnic types
99	Unclassified

P16-18 Ancestry--First entry

001	European (001-199)
200	Hispanic--other (200-299, except 210-218)
210	Mexican (210-218)
300	Central and South America, West Indies (except Hispanic) (300-399)
400	African and Southwest Asian (400-599)
600	Asian--other (600-799, except 706-729, 740-745, 750-764, and 785-789)
706	Chinese (706-719)
720	Filipino (720-729)
740	Japanese (740-745)
750	Korean (750-764)
785	Vietnamese (785-789)
800	Pacific (Australia, New Zealand, etc.) (800-899, except 811-814, 821, 822, 824, 827-829, 850-859, 861)
811	Hawaiian (811-813)
814	Samoan (814, 861)
821	Chamorro (821-822)
824	Palauan (824)
827	Ponapean (827)
828	Chuukese (828)
829	Yapese (829)
850	Pacific Islander (850-859)
900	Black (900-912)
913	North American--other (913-998, except 924-928)
924	White (924-928)

P19-21 Ancestry--second entry

000	NA (Second ancestry not given)
001	European (001-199)
200	Hispanic--other (200-399, except 210-218)
210	Mexican (210-218)
400	African/Middle Eastern/Asian--other (400-799, except 706-729, 740-745, 750-764, 785-789)
706	Chinese (706-719)
720	Filipino (720-729)

Appendix C: Notes on Selected Data Items (continued)

740	Japanese (740-745)
750	Korean (750-764)
785	Vietnamese (785-789)
800	Pacific (Australia, New Zealand, etc.) (800-899, except 811-814, 821, 822, 824, 827-829, 850-859, 861)
811	Hawaiian (811-813)
814	Samoa (814, 861)
821	Chamorro (821-822)
824	Palauan (824)
827	Ponapean (827)
828	Chuukese (828)
829	Yapese (829)
850	Pacific Islander (850-859)
900	Black (900-912)
913	North American/American--other (913-998, except 924-928)
924	White (924-928)

P22-23 Age

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.

P25-27 Place of Birth

006	California
015	Hawaii
057	United States--other (01-57, except 06 and 15)
066	Guam
069	CNMI (69-71, 73-77)
072	Puerto Rico
110	Germany (110-114)
139	England
207	China
209	Hong Kong
215	Japan
217	Korea (217-219)
231	Philippines
238	Taiwan
239	Thailand
242	Vietnam

Appendix C: Notes on Selected Data Items (continued)

301	Canada
650	Palau (517, 650-661)
710	Kosrae--Federated States of Micronesia (710-711)
720	Pohnpei--Federated States of Micronesia (720-729)
730	Yap--Federated States of Micronesia (730-743)
750	Chuuk--Federated States of Micronesia (750-794)
800	All other countries

P37-39 Father's Place of Birth

006	California
015	Hawaii
057	United States--other (01-57, except 06 and 15)
060	American Samoa (60-65)
066	Guam
069	CNMI (69-71, 73-77)
072	Puerto Rico
110	Germany (110-114)
139	England
207	China
210	India
215	Japan
217	Korea (217-219)
224	Malaysia
231	Philippines
238	Taiwan
239	Thailand
242	Vietnam
301	Canada
315	Mexico
650	Palau (517, 650-661)
710	Kosrae--Federated States of Micronesia (710-711)
720	Pohnpei--Federated States of Micronesia (720-729)
730	Yap--Federated States of Micronesia (730-743)
750	Chuuk--Federated States of Micronesia (750-794)
800	All other countries

P40-42 Mother's Place of Birth

006	California
015	Hawaii
057	United States--other (01-57, except 06 and 15)
060	American Samoa (60-65)
066	Guam
069	CNMI (69-71, 73-77)
072	Puerto Rico
110	Germany (110-114)
139	England
207	China
210	India

Appendix C: Notes on Selected Data Items (continued)

215	Japan
217	Korea (217-219)
224	Malaysia
231	Philippines
238	Taiwan
239	Thailand
242	Vietnam
301	Canada
315	Mexico
650	Palau (517, 650-661)
710	Kosrae--Federated States of Micronesia (710-711)
720	Pohnpei--Federated States of Micronesia (720-729)
730	Yap--Federated States of Micronesia (730-743)
750	Chuuk--Federated States of Micronesia (750-794)
800	All other countries

P46-48 Migration--island/state/country

000	NA (Nonmovers/less than 5 years old)
006	California
015	Hawaii
057	United States--other (01-57, except 06 and 15)
066	Guam
069	CNMI (69-71, 73-77)
110	Germany (110-114)
120	Italy
134	Spain
139	England
207	China
210	India
215	Japan
217	Korea (217-219)
231	Philippines
238	Taiwan
650	Palau (517, 650-661)
720	Pohnpei--Federated States of Micronesia (720-729)
730	Yap--Federated States of Micronesia (730-743)
750	Chuuk--Federated States of Micronesia (750-794)
800	All other countries

P51-53 What language other than English

000	NA (Less than 5 years old/speaks only English)
601	European--other (601-655, except 625)
625	Spanish
656	Asian--other (656-741, except 708-714, 723, 724, 728)
708	Chinese (708-714)
723	Japanese
724	Korean
728	Vietnamese

Appendix C: Notes on Selected Data Items (continued)

742	Filipino (742-749)
750	Micronesian--other (750-776, except 752, 759-761, 764, 767, 776)
752	Chamorro
759	Palau
760	Ponapean
761	Chuukese
764	Yapese
767	Samoan
776	Hawaiian
800	All other languages (777-982)

P69, P70, Work Limitation Status (DISABL1), Work Prevented Status (DISABL2),  
P71, and Mobility Limitation Status (MOBILLIM), Personal Care Limitation Status (PERSCARE)  
P72

The following categories of persons are included in the (N/A) category for the variables P71 and P72:

- Under 16 years;
- In wards in general and military hospitals for patients who have no usual home elsewhere;
- In hospitals or wards for the chronically ill;
- In military stockades or jails;
- In crews of civilian vessels;
- In transient quarters for temporary residents;
- In military quarters on base;
- On military ships.

P82-84 Island/State/Foreign Country Where Worked Last Week (Place-of-Work)

The data on place-of-work were derived from answers to questionnaire item 22, which was asked of persons who indicated in question 21 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 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 question asked for the name of the village, if the person worked in the area of residence; if the workplace was outside the area, the name of the territory, commonwealth, U.S. state, or foreign country where they worked. 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.

Place-of-work data may show a few workers who made unlikely daily work trips (e.g., workers who lived in Guam and worked in California). 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--Since items on commuting characteristics were asked for the first time in the 1990 census, no comparable data exist.

Appendix C: Notes on Selected Data Items (continued)

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 one 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 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.

- 000 NA (Less than 16 years old/Not in labor force/Unemployed/Employed but not at work/Armed Forces not at work)
- 006 California
- 015 Hawaii
- 057 United States--other (001-057, except 006 and 015)
- 066 Guam
- 070 Saipan
- 215 Japan
- 217 Korea (217-219)
- 231 Philippines
- 554 At Sea
- 555 Abroad/All other Countries (060-794, except 066, 070, 215, 217-219, 231, and 554)

P97-99 Industry

- 000 NA (Less than 16 years old/unemployed who never worked/not in labor force who last worked prior to 1985)
- 391 Miscellaneous manufacturing industries (300, 340, 391)
- 010-999 Specific industry codes (see Appendix I)

P100-102 Occupation

- 000 NA (Less than 16 years old/unemployed who never worked/not in labor force who last worked prior to 1985)
- 154 Postsecondary teachers, subject not specified (129,154)
- 216 Engineering technicians, n.e.c. (214, 216)
- 259 Sales representatives, mining, manufacturing, and wholesale (258, 259)

- 407 Private household cleaners and servants (403, 407)
- 674 Miscellaneous precision apparel and fabric workers (669, 674)
- 795 Miscellaneous hand working occupation (717, 787, 795)
- 003-
- 999 Specific occupation codes (see Appendix I)

P155-159 The following variables are recodes and were derived for user convenience, Poverty Level Status, Employment Status of Parents, Subfamily Relationships, and Detailed Relationship.

Allocation of . . .

See the discussion of allocation flags beginning on page 3-10.

For other data items

See Appendix B. Many common derived variables are explained.

### Comparing Estimates from PUMS to 100 Percent Data

Users of the PUMS files should be aware that estimates derived from this file are subject to sampling variability as with statistics derived from any sample.

The PUMS file is produced by taking a sample from the 100 percent data.

As an example, consider the 100 percent data and the PUMS estimate for the characteristic Speak only English at home in Guam. The number of people in Guam is 133,152.

100 Percent Data	- 44,048
PUMS estimate	- 44,330

Is the difference between the 100 percent data and the PUMS estimate i.e., 282 people who speak only English at home, due just to sampling? Confidence intervals or hypothesis testing are used to answer this question. We want to address the question as to whether we should be concerned by the size of the difference between the estimate and the 100-percent count.

The PUMS estimate has a standard error of 877. The user should refer to Chapter 3--Accuracy of the Data--of the PUMS technical documentation for a detailed explanation on how to compute standard errors.

If we add and subtract 1.645 standard errors from the PUMS estimate, we develop a 90 percent confidence interval. If the 100 percent data value falls in the interval, then it can be concluded that the difference is within sampling variability. In this case the 90 percent confidence interval around the PUMS estimate is 42,887 to 45,773, which includes the 100 percent data value. This indicates that the difference should not be cause for concern.

# APPENDIX D.

## Collection and Processing Procedures

### CONTENTS

Data Collection Procedures .....	D-2
Enumeration and Residence Rules .....	D-1
Processing Procedures .....	D-2

### ENUMERATION AND RESIDENCE RULES

In accordance with census practice, 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 the Pacific Outlying Areas [American Samoa, the Commonwealth of the Northern Mariana Islands (Northern Mariana Islands), Guam, or the Republic of Palau (Palau)] was to be included in the census, without regard to the person's legal status or citizenship. As in previous censuses, persons in the Pacific Outlying Areas specifically excluded from the census were foreign travelers who had not established a residence.

Persons with a usual residence outside the Pacific Outlying Areas were not enumerated in the 1990 censuses of the Pacific Outlying Areas. On the other hand, residents of the Pacific Outlying Areas temporarily abroad were to be enumerated at their usual residence in the Pacific Outlying Areas.

#### 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

where 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 was staying on April 1, 1990.

Persons temporarily away from their usual residence, whether in the area or abroad, 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 stationed in Guam 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 United States Navy ship homeported in Guam and not deployed to the 6th or 7th Fleet was attributed to the geographic area that the Department of the Navy designated as its homeport. If the homeport included more than one geographic area, ships berthed there on Census Day were assigned by the Bureau of the Census to the geographic area 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 geographic area 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 ship in Guam 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 overseas population.

**Persons on U.S. Maritime Ships**—Persons aboard U.S. maritime ships who reported an off-ship residence were counted at that homeport of the ship.

**Persons Away at School**—College students were counted as residents of the place in which they were living while attending college. 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 jails; detention centers; 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**—Persons in worker camps who did not report a usual residence elsewhere were counted as residents of the camp where they were on Census Day.

In American Samoa, Hurricane Ofa 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 rather than the temporary quarters where they were staying.

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 censuses of American Samoa, the Northern Mariana Islands, Guam, and Palau were conducted using modified list/ enumerate procedures (formerly called conventional or door-to-door enumeration).

### **Enumeration of Housing Units**

Beginning in early April (early May in Palau), enumerators visited and listed every housing unit and conducted a personal interview, asking the questions as worded on the census questionnaire and recording the answers. A single questionnaire contained all questions asked of every person and every housing unit. This questionnaire contained both basic (stateside 100-percent equivalent) and detailed (stateside sample equivalent) population and housing questions. Only housing information was obtained for vacant housing units.

### **Field Followup**

Followup enumerators visited each address for which questionnaires were missing to obtain a completed questionnaire. If a followup enumerator determined that the unit was vacant on Census Day, regardless of the present occupancy status, the enumerator obtained only housing information about the unit from a knowledgeable source and filled out a questionnaire for that unit, completing specified items in the questionnaire for vacant units.

**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 for which questionnaires did not meet specific quality standards because of incomplete information were contacted by personal visit to obtain the missing information.

## **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 and Military Census Reports (used only in Guam)] included the same population questions (with minor modifications to the Military Census Report) as the regular questionnaires but did not include any housing questions. The Military Census Report was used in Guam to enumerate all military personnel, including military crews of ships.

## **PROCESSING PROCEDURES**

The 1990 census questionnaires for American Samoa, the Northern Mariana Islands, Guam, and Palau were designed as keyable documents. The information supplied to the enumerator by the respondent was recorded by marking the answers in the appropriate answer boxes and, in some cases, entering a write-in response.

Enumerators returned all completed questionnaires to the area district office where the questionnaires were checked in and edited for completeness and consistency of the responses. Once all data collection activities were complete, all questionnaires were sent to the Census Bureau's Jeffersonville, Indiana Processing Office.

After check-in at the processing office, all write-in entries (ethnicity or race, relationship, language, migration, place of birth, place of birth of parents, place of work, industry, and occupation) were coded clerically. After all coding operations were complete, the data entry clerks keyed all the responses to the questions on all the questionnaires (Individual Census Reports, Military Census Reports, and Population and Housing Questionnaires), including the codes for the write-in entries.

The tapes containing the keyed data were then sent to Census Bureau headquarters, where they were processed on microcomputers using the Consistency and Correction (CONCOR) package for editing the data and the Census Tabulation Systems (CENTS) for tabulating the data.



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/Village	State or territory/Island	ZIP Code
County or foreign country	Names of nearest intersecting streets or roads	

PLEASE ASK QUESTIONS H1a—H30 FOR THIS HOUSEHOLD

<p><b>H1a.</b> 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?</p> <p>1 <input type="checkbox"/> Yes — Determine if you should add the person(s) based on the instructions for Question 1a on page 1.</p> <p>2 <input type="checkbox"/> No</p> <p><b>b.</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?</p> <p>1 <input type="checkbox"/> Yes — Determine if you should delete the person(s) based on the instructions for Question 1a on page 1.</p> <p>2 <input type="checkbox"/> No</p>	<p><b>H6.</b> What is the MAIN type of material used for the foundation of this building?</p> <p>1 <input type="checkbox"/> Concrete</p> <p>2 <input type="checkbox"/> Wood pier or pilings</p> <p>3 <input type="checkbox"/> Other</p>
<p><b>H2.</b> Which best describes this building? Include all apartments, flats, etc., even if vacant.</p> <p>1 <input type="checkbox"/> A mobile home or trailer</p> <p>2 <input type="checkbox"/> A one-family house detached from any other house</p> <p>3 <input type="checkbox"/> A one-family house attached to one or more houses</p> <p>6 <input type="checkbox"/> A building with 2 apartments</p> <p>7 <input type="checkbox"/> A building with 3 or 4 apartments</p> <p>9 <input type="checkbox"/> A building with 5 to 9 apartments</p> <p>10 <input type="checkbox"/> A building with 10 to 19 apartments</p> <p>11 <input type="checkbox"/> A building with 20 to 49 apartments</p> <p>12 <input type="checkbox"/> A building with 50 or more apartments</p> <p>13 <input type="checkbox"/> Other</p>	<p><b>H7.</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>H3.</b> When did (Person 1 listed in line 1 of question 1a on page 1) 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>H8.</b> 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.</p> <p>1 <input type="checkbox"/> 1 room</p> <p>2 <input type="checkbox"/> 2 rooms</p> <p>3 <input type="checkbox"/> 3 rooms</p> <p>4 <input type="checkbox"/> 4 rooms</p> <p>5 <input type="checkbox"/> 5 rooms</p> <p>6 <input type="checkbox"/> 6 rooms</p> <p>7 <input type="checkbox"/> 7 rooms</p> <p>8 <input type="checkbox"/> 8 rooms</p> <p>9 <input type="checkbox"/> 9 or more rooms</p>
<p><b>H4.</b> What is the MAIN type of material used for the outside walls of this building? Read each category and mark (X) ONE box.</p> <p>1 <input type="checkbox"/> Poured concrete</p> <p>2 <input type="checkbox"/> Concrete blocks</p> <p>3 <input type="checkbox"/> Metal</p> <p>4 <input type="checkbox"/> Wood</p> <p>5 <input type="checkbox"/> Other</p> <p>6 <input type="checkbox"/> No walls</p>	<p><b>H9.</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>0 <input type="checkbox"/> No bedroom</p> <p>1 <input type="checkbox"/> 1 bedroom</p> <p>2 <input type="checkbox"/> 2 bedrooms</p> <p>3 <input type="checkbox"/> 3 bedrooms</p> <p>4 <input type="checkbox"/> 4 bedrooms</p> <p>5 <input type="checkbox"/> 5 or more bedrooms</p>
<p><b>H5.</b> What is the MAIN type of material used for the roof of this building? Read each category and mark (X) ONE box.</p> <p>1 <input type="checkbox"/> Poured concrete</p> <p>2 <input type="checkbox"/> Metal</p> <p>3 <input type="checkbox"/> Wood</p> <p>4 <input type="checkbox"/> Thatch</p> <p>5 <input type="checkbox"/> Other</p>	<p><b>H10a.</b> Do you have hot and cold piped water?</p> <p>1 <input type="checkbox"/> Yes, in this unit</p> <p>2 <input type="checkbox"/> Yes, in this building</p> <p>3 <input type="checkbox"/> No, only cold piped water in this unit</p> <p>4 <input type="checkbox"/> No, only cold piped water in this building</p> <p>5 <input type="checkbox"/> No, only cold piped water outside this building</p> <p>6 <input type="checkbox"/> No piped water</p> <p style="text-align: right;">} Skip to H10c</p> <p><b>b.</b> What type of energy does your water heater use most?</p> <p>1 <input type="checkbox"/> Electricity</p> <p>2 <input type="checkbox"/> Gas</p> <p>3 <input type="checkbox"/> Solar</p> <p>4 <input type="checkbox"/> Other fuels</p>

<p><b>H10c.</b> Do you have a bathtub or shower?</p> <p>1 <input type="checkbox"/> Yes, in this unit</p> <p>2 <input type="checkbox"/> Yes, in this building</p> <p>3 <input type="checkbox"/> Yes, outside this building</p> <p>4 <input type="checkbox"/> No</p>	<p><b>H17.</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>H21a.</b> What is the average monthly cost for electricity for this (house/apartment)?</p> <p style="text-align: center;">\$ <span style="border: 1px dashed black; padding: 2px 10px;">          </span>.00</p> <p style="text-align: center;">Average monthly cost — Dollars</p> <p style="text-align: center;">OR</p> <p>1 <input type="checkbox"/> Included in rent or in condominium fee</p> <p>2 <input type="checkbox"/> No charge or electricity not used</p>
<p><b>d.</b> Do you have a flush toilet?</p> <p>1 <input type="checkbox"/> Yes, in this unit</p> <p>2 <input type="checkbox"/> Yes, in this building</p> <p>3 <input type="checkbox"/> Yes, outside this building</p> <p>4 <input type="checkbox"/> No</p> <p style="text-align: right;">} Skip to H11</p>	<p><b>H18a.</b> Are your MAIN cooking facilities inside or outside this building?</p> <p>1 <input type="checkbox"/> Inside this building</p> <p>2 <input type="checkbox"/> Outside this building</p> <p>3 <input type="checkbox"/> No cooking facilities — Skip to H18c</p> <p style="text-align: right;">} Go to H18b</p>	
<p><b>e.</b> What type of toilet facilities do you have?</p> <p>1 <input type="checkbox"/> Outhouse or privy</p> <p>2 <input type="checkbox"/> Other or none</p>	<p><b>b.</b> What type of cooking facilities are these?</p> <p>1 <input type="checkbox"/> Electric stove</p> <p>2 <input type="checkbox"/> Kerosene stove</p> <p>3 <input type="checkbox"/> Gas stove</p> <p>4 <input type="checkbox"/> Microwave oven and non-portable burners</p> <p>5 <input type="checkbox"/> Microwave oven only</p> <p>6 <input type="checkbox"/> Other (fireplace, hotplate, etc.)</p>	<p><b>b.</b> What is the average monthly cost for gas for this (house/apartment)?</p> <p style="text-align: center;">\$ <span style="border: 1px dashed black; padding: 2px 10px;">          </span>.00</p> <p style="text-align: center;">Average monthly cost — Dollars</p> <p style="text-align: center;">OR</p> <p>1 <input type="checkbox"/> Included in rent or in condominium fee</p> <p>2 <input type="checkbox"/> No charge or gas not used</p>
<p><b>H11.</b> Does this (house/apartment) have electric power?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No</p>		
<p><b>H12.</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>c.</b> Do you have a refrigerator in this building?</p> <p>If "Yes," ask — What type?</p> <p>1 <input type="checkbox"/> Yes, electric</p> <p>2 <input type="checkbox"/> Yes, gas</p> <p>3 <input type="checkbox"/> No refrigerator</p>	
<p><b>H13.</b> Do you have a battery operated radio? Count car radios, transistors, and other battery operated sets in working order or needing only new battery for operation.</p> <p>1 <input type="checkbox"/> Yes, 1 or more</p> <p>2 <input type="checkbox"/> No</p>	<p><b>d.</b> Do you have a sink with piped water in this building?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No</p>	<p><b>c.</b> What is the average monthly cost for water for this (house/apartment)?</p> <p style="text-align: center;">\$ <span style="border: 1px dashed black; padding: 2px 10px;">          </span>.00</p> <p style="text-align: center;">Average monthly cost — Dollars</p> <p style="text-align: center;">OR</p> <p>1 <input type="checkbox"/> Included in rent or in condominium fee</p> <p>2 <input type="checkbox"/> No charge</p>
<p><b>H14.</b> Do you have a television set?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No</p>		
<p><b>H15.</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>H19.</b> How many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of your household?</p> <p>0 <input type="checkbox"/> None</p> <p>1 <input type="checkbox"/> 1</p> <p>2 <input type="checkbox"/> 2</p> <p>3 <input type="checkbox"/> 3</p> <p>4 <input type="checkbox"/> 4</p> <p>5 <input type="checkbox"/> 5</p> <p>6 <input type="checkbox"/> 6</p> <p>7 <input type="checkbox"/> 7 or more</p>	
<p><b>H16.</b> Do you get water from —</p> <p>Read list and mark (X) ONE box.</p> <p>1 <input type="checkbox"/> A public (government) system only?</p> <p>2 <input type="checkbox"/> A public (government) system and catchment?</p> <p>4 <input type="checkbox"/> An individual well?</p> <p>5 <input type="checkbox"/> A catchment, tanks, or drums only?</p> <p>6 <input type="checkbox"/> A public standpipe or steel hydrant?</p> <p>7 <input type="checkbox"/> Some other source such as a spring, river, creek, etc.?</p>	<p><b>H20.</b> Is this (house/apartment) part of a condominium?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No</p>	<p><b>d.</b> What is the average monthly cost for oil, coal, kerosene, wood, etc., for this (house/apartment)?</p> <p style="text-align: center;">\$ <span style="border: 1px dashed black; padding: 2px 10px;">          </span>.00</p> <p style="text-align: center;">Average monthly cost — Dollars</p> <p style="text-align: center;">OR</p> <p>1 <input type="checkbox"/> Included in rent or in condominium fee</p> <p>2 <input type="checkbox"/> No charge or these fuels not used</p>

ALSO ASK THESE QUESTIONS FOR THIS HOUSEHOLD

<p><b>H22.</b> Is this (house/apartment) — <i>Read list and mark (X) ONE box.</i></p> <p>1 <input type="checkbox"/> Owned by you or someone in this household with a mortgage or loan?</p> <p>2 <input type="checkbox"/> Owned by you or someone in this household free and clear (without a mortgage)?</p> <p>3 <input type="checkbox"/> Rented for cash rent?</p> <p>4 <input type="checkbox"/> Occupied without payment of cash rent?</p>	<p><b>H27.</b> What was the annual payment for fire, hazard, and flood insurance on THIS property?</p> <p style="text-align: center;">\$ _____ .00 Yearly amount — Dollars</p> <p style="text-align: center;">OR</p> <p>0 <input type="checkbox"/> None</p>	<p><b>H29a.</b> Is there a second or junior mortgage or a home equity loan on THIS property?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No — <i>Go to page 5 and ask population questions for Person 1 listed on line 1 of question 1a on page 1.</i></p>
<p><i>Ask only if RENT IS PAID for this (house/apartment) —</i></p> <p><b>H23.</b> What is the monthly rent? <i>If rent is NOT PAID BY THE MONTH, see your job instructions on how to figure a monthly rent.</i></p> <p style="text-align: center;">\$ _____ .00 Monthly amount — Dollars</p>	<p><b>H28a.</b> Is there a mortgage, deed of trust, contract to purchase, or similar debt on THIS property?</p> <p>1 <input type="checkbox"/> Yes, mortgage, deed of trust, or similar debt } <i>Go to H28b</i></p> <p>2 <input type="checkbox"/> Yes, contract to purchase }</p> <p>3 <input type="checkbox"/> No — <i>Skip to H29a</i></p>	<p>b. How much is the regular monthly payment on all second or junior mortgages and all home equity loans?</p> <p style="text-align: center;">\$ _____ .00 Monthly amount — Dollars</p> <p style="text-align: center;">OR</p> <p>0 <input type="checkbox"/> No regular payment required</p>
<p><i>If this is a ONE-FAMILY HOUSE —</i></p> <p><b>H24.</b> Is there a business (such as a store or shop) or a medical office on this property?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No</p>	<p>b. How much is the regular monthly mortgage payment on THIS property? Include payments only on first mortgage or contract to purchase.</p> <p style="text-align: center;">\$ _____ .00 Monthly amount — Dollars</p> <p style="text-align: center;">OR</p> <p>0 <input type="checkbox"/> No regular payment required — <i>Skip to H29a</i></p>	<p><i>Ask ONLY if this is a CONDOMINIUM</i></p> <p><b>H30.</b> What is the monthly condominium fee?</p> <p style="text-align: center;">\$ _____ .00 Monthly amount — Dollars</p>
<p><b>INTERVIEWER INSTRUCTION:</b></p> <p><i>Ask questions H25 to H30 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 page 5.</i></p>	<p>c. Does the regular monthly mortgage payment include payments for real estate taxes on THIS property?</p> <p>1 <input type="checkbox"/> Yes, taxes included in payment</p> <p>2 <input type="checkbox"/> No, taxes paid separately or taxes not required</p>	<p><i>Go to page 5 and ask population questions for Person 1 listed on line 1 of question 1a on page 1.</i></p>
<p><b>H25.</b> What is the value of this property; that is, how much do you think this property (house and lot/condominium unit) would sell for if it were for sale?</p> <p style="text-align: center;">\$ _____ .00 Value of property — Dollars</p>	<p>d. Does the regular monthly mortgage payment include payments for fire, hazard, or flood insurance on THIS property?</p> <p>1 <input type="checkbox"/> Yes, insurance included in payment</p> <p>2 <input type="checkbox"/> No, insurance paid separately or no insurance</p>	
<p><b>H26.</b> What were the real estate taxes on THIS property last year?</p> <p style="text-align: center;">\$ _____ .00 Yearly amount — Dollars</p> <p style="text-align: center;">OR</p> <p>0 <input type="checkbox"/> None</p>		
<b>FOR ENUMERATOR USE</b>		
<p><b>C1.</b> Vacancy status</p> <p>1 <input type="checkbox"/> For rent</p> <p>2 <input type="checkbox"/> For sale only</p> <p>3 <input type="checkbox"/> Rented or sold, not occupied</p> <p>4 <input type="checkbox"/> For seas/rec/occ</p> <p>5 <input type="checkbox"/> For migrant workers</p> <p>6 <input type="checkbox"/> Other vacant</p>	<p><b>C2.</b> Is this unit boarded up?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No</p>	<p><b>D.</b> Months vacant</p> <p>1 <input type="checkbox"/> Less than 1</p> <p>2 <input type="checkbox"/> 1 up to 2</p> <p>3 <input type="checkbox"/> 2 up to 6</p> <p>4 <input type="checkbox"/> 6 up to 12</p> <p>5 <input type="checkbox"/> 12 up to 24</p> <p>6 <input type="checkbox"/> 24 or more</p>

**PERSON 1**

Last name \_\_\_\_\_

First name \_\_\_\_\_ Middle initial \_\_\_\_\_

**2. HOUSEHOLDER**  
 START with the household member (or one of the members) in whose name the home is owned, being bought, or rented. This should be the first person listed in question 1a on page 1.  
 If there is no such person, start with any adult household member.

**3. Is ... male or female?**  
 Mark (X) ONE box.  
 1  Male  
 2  Female

**4. What is ...'s ethnic origin or race?**  
 Print no more than two groups.    
 For example: Chamorro, Samoan, White, Black, Carolinian, Filipino, Japanese, Korean, Palauan, Tongan, and so on.

**5. Age and year of birth:**  
 a. How old is ...? (Age should be as of April 1, 1990.)  
 If unknown, say — Please give me your best estimate.  
 Print the age in the boxes.  
   Age

b. In what year was ... born?  
 Print the year of birth in the boxes.  
    Year of birth

**6. Is ... now married, widowed, divorced, separated, or has ... never been married?**  
 Mark (X) ONE box.  
 1  Now married  
 2  Widowed  
 3  Divorced  
 4  Separated  
 5  Never married

**7. Where was ... born?**  
 Print the name of the island, U.S. State, or foreign country in the space below.

**8. If the answer to question 7 appears in one of the first two "Yes" categories listed below, mark (X) the appropriate "Yes" category. Otherwise, ask —**  
 Is ... a CITIZEN or NATIONAL of the United States?  
 1  Yes, born in this area — Skip to 10  
 2  Yes, born in the United States or another U.S. Territory or Commonwealth  
 3  Yes, born elsewhere of U.S. parent or parents  
 4  Yes, U.S. citizen by naturalization  
 5  No, not a U.S. citizen or national (permanent residence)  
 6  No, not a U.S. citizen or national (temporary residence)

**9. When did ... come to this area to stay? If entered the area more than once, ask — What is the latest year?**  
    Year

**10. 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

**11a. How much school has ... COMPLETED?**  
 Read categories if person is unsure. Mark (X) ONE box for the highest grade COMPLETED or degree RECEIVED. If currently enrolled, mark the previous grade attended or highest degree received.

30  No school completed  
 31  Pre-kindergarten  
 32  Kindergarten  
 Grades 1—11  
 1  1st 4  4th 7  7th 10  10th  
 2  2nd 5  5th 8  8th 11  11th  
 3  3rd 6  6th 9  9th

12  12th grade, NO DIPLOMA  
 13  HIGH SCHOOL GRADUATE - high school DIPLOMA or the equivalent (For example: GED)  
 14  Some college but no degree  
 15  Associate degree in college - Occupational program  
 16  Associate degree in college - Academic program  
 17  Bachelor's degree (For example: BA, AB, BS)  
 18  Master's degree (For example: MA, MS, MEng, MEd, MSW, MBA)  
 19  Professional school degree (For example: MD, DDS, DVM, LLB, JD)  
 20  Doctorate degree (For example: PhD, EdD)

b. Has ... completed the requirements for a vocational training program at a trade school, business school, hospital, some other kind of school for occupational training, or place of work? Do not include academic college courses.  
 If "Yes," ask — Was training received in this area?  
 1  No  
 2  Yes, in this area  
 3  Yes, not in this area

**12a. Where was ...'s father born?**  
 Print the name of the island, U.S. State, or foreign country in the space below.

b. Where was ...'s mother born?  
 Print the name of the island, U.S. State, or foreign country in the space below.

**13. Is ... a dependent of an active-duty or retired member of the Armed Forces of the United States or of the full-time military Reserves or National Guard? "Active duty" does NOT include training for the military Reserves or National Guard.**  
 1  Yes, dependent of active-duty member of the Armed Forces  
 2  Yes, dependent of retired member of the Armed Forces, or dependent of an active-duty or retired member of full-time National Guard or Armed Forces Reserve  
 3  No

**14a. If the person was born after April 1, 1985, mark (X) box without asking 14a, and go to the next person.**  
 Did ... live in this house or apartment 5 years ago (on April 1, 1985)?  
 1  Born after April 1, 1985 — Go to questions for the next person  
 2  Yes — Skip to 15a  
 3  No

b. What is the name of the island, U.S. State, or foreign country where ... lived 5 years ago?  
    
 If outside this area, print the answer above and skip to 15a.

c. What is the name of the village where ... lived?

**15a. Does ... know how to read and write in any language?**  
 1  Yes 2  No

b. Does ... speak a language other than English at home?  
 1  Yes 2  No — Skip to 16

c. What is this language?  
    
 For example: Chamorro, Samoan, Carolinian

d. Does ... speak this language at home more frequently than English?  
 1  Yes, more frequently than English  
 2  Both equally often  
 3  No, less frequently than English  
 4  Does not speak English

**16. INTERVIEWER CHECK ITEM — Mark (X) based on question 5.**  
 1  Born before April 1, 1975 — Go to 17a  
 2  Born April 1, 1975 or later — Go to questions for the next person

**17a. Has ... ever been on active-duty military service in the Armed Forces of the United States? "Active duty" does NOT include training for the military Reserves or National Guard.**  
 1  Yes, now on active duty — Skip to 17c  
 2  Yes, on active duty in past, but not now — Skip to 17c  
 3  No

b. Has ... ever been in the United States military Reserves or National Guard?  
 1  Yes, now in Reserves or National Guard  
 2  Yes, in Reserves or National Guard in past, but not now  
 3  No } Skip to 17e

c. Did ... serve on active duty during — Read each category and mark (X) each box for which the answer is "Yes."  
 1  September 1980 or later  
 2  May 1975 to August 1980  
 3  Vietnam era (August 1964—April 1975)  
 4  February 1955—July 1964  
 5  Korean conflict (June 1950—January 1955)  
 6  World War II (September 1940—July 1947)  
 7  World War I (April 1917—November 1918)  
 8  Any other time

d. In total, how many years of active-duty military service has ... had?  
 Years

e. Is ... receiving military retirement, survivor, or disability benefits, or VA disability compensation?  
 1  Yes 2  No

**18. 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

**19. 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

**20. 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 6  6 11  11  
 2  2 7  7 12  12  
 3  3 8  8 13  13  
 4  4 9  9 14  14  
 5  5 10  10 15  15 or more

**21a. 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 Armed Forces. Work does NOT include own housework, school work, or volunteer work. Substantive activity includes fishing, growing crops, etc., NOT primarily for commercial purposes.**  
 Read each category and mark (X) the ONE box that applies.  
 1  Yes, worked full time or part time at a job or business AND did NO substantive activity  
 2  Yes, worked full time or part time at a job or business AND did substantive activity  
 3  Yes, did substantive activity only  
 4  No (did not work OR did only own housework, school work, or volunteer work) } Skip to 25

b. How many hours did ... work LAST WEEK at all jobs, excluding substantive activity? Subtract any time off and add any overtime or extra hours worked.  
 Hours

**FOR PERSON 1**

**22. Where did . . . usually work LAST WEEK?**  
*Exclude subsistence activity. If . . . worked at more than one location, ask —*  
 Where did . . . work most last week?  
*If outside the area (for example, another territory, commonwealth, or country), skip to 22b.*

a. What is the name of the village?

*Skip to 23a*

b. What is the name of the territory, commonwealth, U.S. State, or foreign country where . . . worked?

**23a. What type of transportation did . . . usually use to get to work LAST WEEK?** *Exclude transportation to subsistence activity. If more than one method of transportation usually was used during the trip, mark (X) the box for the one used for most of the distance.*

1  Car, truck, or private van/bus  
 2  Public van/bus  
 3  Boat  
 4  Taxicab  
 5  Motorcycle  
 6  Bicycle  
 7  Walked  
 8  Worked at home — *Skip to 28*  
 9  Other method

*Ask only if "car, truck, or private van/bus" is marked in 23a.*

b. How many people, including . . . , usually rode to work together LAST WEEK?

1  Drove alone      5  5 people  
 2  2 people      6  6 people  
 3  3 people      7  7 to 9 people  
 4  4 people      8  10 or more people

**24a. What time did . . . usually leave home to go to work LAST WEEK?** "Usually" means on most days last week.

a.m.      1  a.m.  
 p.m.      2  p.m.

b. How many minutes did it usually take . . . to get from home to work LAST WEEK?

Minutes — *Skip to 28*

**25. Was . . . on layoff from a job or business LAST WEEK?**  
*If "No," ask — Was . . . temporarily absent or on vacation from a job or business last week?*

1  Yes, on layoff  
 2  Yes, on vacation, temporary illness, labor dispute, etc.  
 3  No

**26a. Has . . . been looking for work to earn money during the last 4 weeks?**

1  Yes  
 2  No — *Skip to 27*

b. Could . . . have taken a job LAST WEEK if one had been offered?  
*If "No," ask — For what reason?*

1  No, already has a job  
 2  No, temporarily ill  
 3  No, other reasons (in school, etc.)  
 4  Yes, could have taken a job

**27. When did . . . last work at a job, business, or farm, even for a few days?**

1  1990  
 2  1989  
 3  1988  
 4  1985 to 1987  
 5  1980 to 1984  
 6  1979 or earlier  
 7  Never worked; or did subsistence only

} *Go to 28*  
 } *Skip to 32*

**28-30. The following questions ask about the job worked last week.** *If . . . had more than one job, describe the one . . . worked the most hours. If . . . didn't work, the questions refer to the most recent job or business since 1985.*

**28a. For whom did . . . work?**  
*If now on active duty in the Armed Forces or full-time military Reserves or National Guard, mark (X) this box —> 1*   
*and print the branch of service. If not the Armed Forces, print the name of company, business, or other employer.*

b. What kind of business or industry was this?  
 Describe the activity at location where employed.

*For example: hospital, fish cannery, retail bakery.*

c. Is this mainly manufacturing, wholesale trade, retail trade, or something else?

1  Manufacturing  
 2  Wholesale trade  
 3  Retail trade  
 4  Other (agriculture, construction, service, government, etc.)

**29a. What kind of work was . . . doing?**

*For example: registered nurse, industrial machinery mechanic, cake icer.*

b. What were . . . 's most important activities or duties?

*For example: patient care, repair machines in factory, icing cakes.*

**30. Was . . . — Read list. Mark (X) ONE box.**

1  Employee of a PRIVATE FOR PROFIT company or business or of an individual, for wages, salary, or commissions  
 2  Employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization  
 3  Local or territorial GOVERNMENT employee (territorial/commonwealth, etc.)  
 4  Federal GOVERNMENT employee  
 5  SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm  
 6  SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm  
 7  Working WITHOUT PAY in family business or farm

**31a. Last year (1989), did . . . work, even for a few days, at a paid job or in a business or farm, excluding subsistence activity?**

1  Yes  
 2  No — *Skip to 32*

b. How many weeks did . . . work in 1989, excluding subsistence activity? *Count paid vacation, paid sick leave, and military service.*

Weeks

c. During the weeks WORKED in 1989, how many hours did . . . usually work each week?

Hours

**32. The following questions are about income received during 1989.** *If an exact amount is not known, accept a best estimate. If net income in b, c, or question 33 was a loss, write "Loss" above the dollar amount.*

a. Did . . . earn income from wages, salary, commissions, bonuses, or tips? *Report amount before deductions for taxes, bonds, dues, or other items.*

1  Yes — How much from all jobs? —> \$  .00  
 2  No      Annual amount — Dollars

b. Did . . . earn any income from (his/her) own farm or nonfarm business, proprietorship, or partnership? *Report net income after business expenses.*

1  Yes — How much? —> \$  .00  
 2  No      Annual amount — Dollars

c. Did . . . receive any interest, dividends, net rental or royalty income, or income from estates and trusts? *Include even small amounts credited to an account.*

1  Yes — How much? —> \$  .00  
 2  No      Annual amount — Dollars

d. Did . . . receive any Social Security or Railroad Retirement payments? *Include payments to retired workers, dependents, and to disabled workers.*

1  Yes — How much? —> \$  .00  
 2  No      Annual amount — Dollars

e. Did . . . receive any income from government programs for Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), or other public assistance or public welfare payments?

1  Yes — How much? —> \$  .00  
 2  No      Annual amount — Dollars

f. Did . . . receive any income from retirement, survivor, or disability pensions? *Include payments from companies, unions, Federal, State, and local governments, and the U.S. military. Do NOT include Social Security.*

1  Yes — How much? —> \$  .00  
 2  No      Annual amount — Dollars

g. Did . . . receive any remittances? *Include money from relatives outside the household or in the military.*

1  Yes — How much? —> \$  .00  
 2  No      Annual amount — Dollars

h. Did . . . receive any income from Veterans' (VA) payments, unemployment compensation, child support, alimony, or any other regular source of income? *Do NOT include lump-sum payments such as money from an inheritance or the sale of a home.*

1  Yes — How much? —> \$  .00  
 2  No      Annual amount — Dollars

**33. Do not ask this question if 32a through 32h are complete. Instead, sum these entries and enter the amount below.**

What was . . . 's total income in 1989?

0  None OR \$  .00  
 Annual amount — Dollars

*Please turn to the next page and ask the questions for Person 2 listed on line 2 of question 1a. If this is the last person listed in question 1a on page 1, go to the back of the form.*

## **INTERVIEWER INSTRUCTIONS:**

Before you leave this housing unit, be sure **you** have recorded —

- 1.** Information in items A3, A4, B, D, E, F1 (when necessary), G and H on the front cover of the questionnaire.
- 2.** The respondent's name in item I and the respondent's telephone number (if any) in item J on the front cover of the questionnaire.
- 3.** **Your** signature (name) and the date under item O on the front cover of the questionnaire.

Also, be sure you have —

- 4.** Completed as many of the census questions as possible, including the last resort questions.
- 5.** Completed the FOR ENUMERATOR USE section on page 4, for vacant units only.
- 6.** Entered the required information on the address listing page on the address register **and** on the ARA map.
- 7.** Written all entries legibly.

# APPENDIX F.

## Data Products and User Assistance

### CONTENTS

Data Products .....	F-1
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Sources of Assistance .....	F-3

The 1990 census data products for the Pacific Outlying Areas—American Samoa, the Commonwealth of the Northern Mariana Islands (Northern Mariana Islands), Guam, and the Republic of Palau (Palau)—are being released during 1991-92 and are available in a variety of new and traditional media. The Census Bureau has increased the product options available to data users in an effort to meet a variety of requirements and maximize the usefulness of the data. For example, flexible diskettes for microcomputers are a new data delivery medium for the Pacific Outlying Areas.

The Census Bureau also has expanded services and sources of assistance available to data users. For example, the State Data Center Program, which provides data and services to the public, now includes Guam.

This appendix provides a detailed introduction to the 1990 census data products and related materials, such as maps and reference publications that are available to data users interested in the Pacific Outlying Areas. 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 flexible diskettes. 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. These subjects are listed in figure 1, page F-6. Questions covering the subjects listed in figure 1 were asked of everyone at every housing unit and of all persons in group quarters.

#### Printed Reports

Printed reports are the most convenient and readily available source of data for most census users. The geographic coverage and a description of the printed

reports for American Samoa, the Northern Mariana Islands, Guam, and Palau are listed in figure 2, page F-7. In addition, there are reports, not reflected in figure 2, for the United States, Puerto Rico, and the Virgin Islands of the United States. 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.)

#### Computer Tape Files and Flexible Diskettes

The Census Bureau provides more data on tape and flexible diskettes than in the printed reports. These products are sold by the Census Bureau's Customer Services. There are two general types of data files released on diskettes and computer tape (available on both reels and cartridges). They are introduced below, and more information is presented in figures 3 and 4, page F-7.

**Summary Tape Files (STF's)**—These computer files provide statistics with greater subject-matter detail than the 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.
- STF 1 contains population and housing counts and basic population (age, sex, marital status, and household relationship) and housing (tenure and vacancy data) characteristics. Data will be provided for American Samoa, Guam, the Northern Mariana Islands, and Palau and their component areas in hierarchical sequence down to the block level.
- STF 3 contains data on subjects such as ethnic origin, place of birth, migration, language, educational attainment, fertility, employment status, income and poverty status in 1989, housing structural and plumbing characteristics, other financial characteristics, value and rent, and space utilization in hierarchical sequence down to the block group level.

#### Public Use Microdata Sample (PUMS) File (Guam only)—

This computer file (see figure 4) contains data from a sample of housing-unit records ("microdata") for the entire island of Guam. Each housing-unit record includes

essentially all the 1990 census data collected about each person in a 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 is one PUMS file for Guam. This file presents data for a 10-percent sample of housing units.

**Flexible Diskettes**—STF's and the PUMS file for the Pacific Outlying Areas also will be offered on flexible diskettes ("floppies") for IBM and compatible microcomputers using PC DOS 1.1 or higher operating systems.

### 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.

**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, and diskettes 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 three series:

**County Block Maps**—This map series includes a map prepared on the smallest possible number of map sheets at the largest practical scale for each first-order subdivision of each Pacific Outlying Area (see appendix A for definitions). The number of sheets depends on the areal size of the subdivision and the density of the block pattern. The appropriate map scale permits display of all block numbers and feature identifiers as well as the

boundaries, names, and codes for the districts, islands, and counties (for American Samoa); the election districts (for Guam); municipalities and municipal districts (for the Northern Mariana Islands); and States and municipalities (for Palau); places; and block numbering areas (BNA's). Data users may purchase these maps from Customer Services.

**County Subdivision Outline Map**—This map of each area shows the names and boundaries of all the districts and counties (for American Samoa); municipalities and municipal districts (for the Northern Mariana Islands); election districts (for Guam); States and municipalities (for Palau); and places for each of the Pacific Outlying Areas. Data users may purchase these maps from the Census Bureau. This map also will appear printed and bound in the printed reports for American Samoa, Guam, the Northern Mariana Islands, and Palau.

**Census Tract/Block Numbering Area (BNA) Outline Map**—Maps in this series depict the BNA boundaries and numbers, the features and feature names underlying these boundaries, and the boundaries and names of the districts, islands, and counties (for American Samoa); municipalities and municipal districts (for the Northern Mariana Islands); election districts (for Guam); States and municipalities (for Palau); and places for each of the Pacific Outlying Areas. There are no census tracts in the Pacific Outlying Areas. Data users may purchase electrostatic plotter versions of these maps from the Census Bureau. Data users who want printed maps can purchase them from the Superintendent of Documents.

### Geographic Publications

The *Geographic Identification Code Scheme* report in the 1990 CPH-R series shows the 1990 census geographic area codes and Federal Information Processing Standards (FIPS) codes, as appropriate, for American Samoa, the Northern Mariana Islands, Guam, Palau, the Virgin Islands, Puerto Rico, States, the District of Columbia, metropolitan areas, counties, county subdivisions, places, and other entities, along with some descriptive information about the codes. The code scheme also is offered on computer tape.

### 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 the entire United States, Puerto Rico, the Virgin Islands, American Samoa, Guam, the Northern Mariana Islands, and Palau.

The TIGER System has significantly improved the utility of 1990 census maps and geographic reference products. Extract files generated from the TIGER data base permit users, with appropriate software, to perform such tasks as linking the statistical data in 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 area could show the distribution of the population by age groups 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 contain attributes for the segments of each boundary and feature (for example, roads), 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 and other TIGER System extracts, such as TIGER/Boundary™ and TIGER/SDTS (Spatial Data Transfer Standard), 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.

- *Introduction to 1990 Census Products for the Pacific Outlying Areas.* A free brochure describing reports, machine-readable products, and other products of the 1990 censuses of the Pacific Outlying Areas. Request from Customer Services.
- *1990 Census of Population and Housing Tabulation and Publication Program.* A free report describing 1990 census products for the United States, comparing 1990 products with those of 1980, 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.

- *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 and maps described earlier. (The 1990 census printed reports are sold by the Superintendent of Documents, as noted below.) Also, users may consult with specialists at the Census Bureau's Washington headquarters and the Seattle Regional Office, which serves American Samoa, the Northern Mariana Islands, Guam, and Palau.

**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 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 (FAX number: 301-763-8412).

#### **Regional Office Contact—**

Seattle, WA            206-728-5314

#### **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 Center**—The Census Bureau furnishes data products, training in data access and use, technical assistance, and consultation to the State Data Centers in Guam, all States, the District of Columbia, Puerto Rico, and the Virgin Islands, which in turn, offers publications for reference, printouts from computer tape, specially prepared reports, maps, and other products and assistance to data users. The lead agency of the Guam data center program is the Guam Department of Commerce, Suite 601, GITC Building, 590 South Marine Drive, Tamuning, Guam 96911. For a list of all the State Data Centers, contact Customer Services.

**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, Pacific Outlying Areas, and other areas that receive (from the Government Printing Office) Federal publications that they think their patrons will need. 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. 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 for the Pacific Outlying Areas, Puerto Rico, and the Virgin Islands 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 the Pacific Outlying Areas 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 for Guam and the Northern Mariana Islands 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, manufactures, 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.

### **Agriculture Census**

The agriculture census is conducted concurrently with the economic censuses in Guam and every 10 years (concurrently with the decennial census) in American Samoa and the Northern Mariana Islands. It is the only source of uniform agriculture data for the first-order subdivisions. 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 U.S. Virgin Islands as well as the 50 States and the District of Columbia. Data are published separately on trade between the United States, American Samoa, the Northern Mariana Islands, Guam, Palau, Puerto Rico, and the U.S. Virgin Islands.

### **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. 1990 Census Content for American Samoa, the Northern Mariana Islands, Guam, and Palau

**Population**

**Housing**

**Basic Subjects\***

Household relationship  
Sex  
Ethnic origin (Race)  
Age  
Marital status

Number of units in structure  
Number of rooms in unit  
Tenure (owned or rented)  
Value of home or monthly rent paid  
Vacancy characteristics

**Detailed Subjects\***

**Social characteristics:**

Place of birth, citizenship and year of entry  
Education (enrollment, attainment, and vocational training)  
Parental birthplace (mother and father)  
Military dependency  
Migration (residence in 1985)  
Ability to read and write/ Language spoken at home/ Frequency of English Usage  
Veteran status  
Disability  
Fertility

Year moved into residence  
Materials used for walls/ roof/ foundation  
Year structure built  
Number of bedrooms  
Plumbing facilities/ water heating fuel  
Electric power  
Telephone in unit  
Radio/ TV  
Air conditioning  
Source of water and method of sewage disposal  
Kitchen facilities  
Vehicles available  
Condominium status \*\*  
Shelter costs, including utilities \*\*\*  
Condominium fee \*\*

**Economic characteristics:**

Labor force  
Place of work and commuting  
Year last worked  
Occupation, industry, and class of worker  
Work experience in 1989  
Income in 1989

\* In the Pacific Outlying Areas, all questions were asked of all persons and of all housing units. The basic subjects are equivalent to the stateside 100-percent subjects, and the detailed subjects are equivalent to the stateside sample subjects.

\*\* Not included on the American Samoa questionnaire.

\*\*\* The American Samoa questionnaire does not include the real estate tax question or the mortgage question that asks if the payment for real estate taxes is included in the mortgage payment.

Figure 2. 1990 Census Printed Report

Series	Title	Report issued for	Description	Geographic areas
1990 CPH-6	<b>Social, Economic, and Housing Characteristics</b>	American Samoa, Guam, Northern Mariana Islands, and Palau	Detailed statistics on population and housing subjects	American Samoa, district, island, county, village Guam, election district, place Northern Mariana Islands, municipality, municipal district, place Palau, State, municipality, place  The report also includes data for summary geographic areas; for example, urban and rural.

Figure 3. 1990 Census Summary Tape Files

Summary Tape File	Geographic areas	Description
STF 1	Each area (American Samoa, Guam, the Northern Mariana Islands, and Palau) and its component areas in hierarchical sequence down to the block level	Basic population and housing counts and characteristics for each geographic area
STF 3	Each area (American Samoa, Guam, the Northern Mariana Islands, and Palau) and its component areas in hierarchical sequence down to the block group level. Some very detailed cross-tabulations will be shown to the district, island, and county level (for American Samoa); the election district level (for Guam); the State and municipality level (for Palau); and the municipal district level (for the Northern Mariana Islands).	Detailed population and housing characteristics for each geographic area

Figure 4. Other 1990 Census Data Products

Title	Description	Geographic areas
Public Use Microdata Sample (PUMS) File for Guam  10 Percent—PUMS Area	Machine-readable file containing a sample of individual census records showing most population and housing characteristics but with identifying information removed	Guam level only
Special Tabulations	User-defined tabulations for specified geographic areas provided on printouts, tapes, or other products	User-defined areas and standard areas

## APPENDIX I. Code Lists

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### ANCESTRY

This section contains a modified code list for ancestry categories for the Guam PUMS. Some categories have been grouped. Each person enumerated in the Guam census had the opportunity to enter two distinct ancestry identities which indicated his or her ethnic origin. Each entry received one of the unique three-digit codes listed below. All codes are listed below; however, the Guam PUMS file contains only the codes listed in bold in the left column. For example, if a respondent entered his ancestry as "Cornish (015)," it will be listed in the PUMS file as "001 (Europe)." The ancestry codes can be aggregated to create commonly recognized national groupings. For example, the code for Cantonese has been collapsed with other "Chinese" entries to form the group Chinese. National groupings can also be collapsed to represent continental areas. For example, all European countries can be added to form a representation of that continent. "n.e.c." is the abbreviation for *not elsewhere classified*.

#### 001 EUROPE (EXCEPT SPAIN)

	001 Alsatian	011	Great Britain
	001 Alsace Lorraine	011	United Kingdom
		012	British Isles
	002 Andorran	013	Channel Islander
	002 Andorra	013	Guernsey Islander
		013	Jersey Islander
	003 Austrian	014	Gibraltar
	003 Austria	015	Cornish
	004 Tirol	015	Cornwall
		016	Corsican
	005 Basque	016	Corsica
	005 Euskalduna		
	005 Euzkadi	017	Cypriot
	006 French Basque	017	Cyprus
	007 Spanish Basque	018	Greek Cypriote
	007 Vasco	019	Turkish Cypriote
		020	Danish
	008 Belgian	020	Denmark
	008 Belgium		
	009 Flemish	021	Dutch
	009 Flanders	021	Holland
	009 Fleming	021	Netherlands
	009 Vlamand		
	010 Walloon	022	English
		022	Anglican
	011 British		

022	England	048	Peloponnesian
022	Mayflower		
023	Faeroe Islander	049	Icelander
023	Faeroe Islands	049	Iceland
024	Finnish	050	Irish
024	Finland	050	Black Irish
025	Karelian	050	Clare
		050	Cork
026	French	050	Donegal
026	France	050	Dubliner
026	Gascon	050	Eire
026	Hugenot	050	Galway
026	Normandy	050	Ireland
027	Lorraine	050	Irish Free State
		050	Kerry
028	Breton	050	Kildare
028	Breizh	050	Kilkenny
028	Bretagne	050	Laoighis
028	Brittany	050	Leitrim
		050	Leix
029	Frisian	050	Limerick
029	Friesian Islands	050	Longford
		050	Louth
030	Friulian	050	Mayo
030	Friuli	050	Meath
030	Furlan	050	Monaghan
031	Ladin	050	Offaly
		050	Roscommon
032	German	050	Sligo
032	Germany	050	Tipperary
033	Bavaria	050	Waterford
034	Berlin	050	Westmeath
035	Hamburg	050	Wexford
036	Hannover	050	Wicklow
037	Hessian	051	Italian
038	Lubecker	051	Istria
039	Pomeranian	051	Italy
040	Prussian	052	Trieste
041	Saxon	053	Abruzzi
042	Sudetenlander	054	Apulian
043	Westphalian	054	Apulia
044	East German	055	Basilicata
045	West German	055	Lucania
045	Palatinate	056	Calabrian
045	Rhineland	057	Amalfin
045	Greek	057	Campania
046	Greece	058	Emilia Romagna
047	Cretan	059	Rome
048	Cyclades	059	Lazio
048	Dodecanese Islander	059	Vatican City

060	Ligurian	082	Jan Meyen Islander
061	Lombardian	082	Norway
062	Marche	082	Spitsbergen
063	Molise	082	Svalbard Islander
064	Neapolitan		
065	Piedmontese	083	Occitan
066	Puglia	083	Provence
067	Sardinian		
068	Sicilian	084	Portuguese
068	Sicily	084	Lusitania
069	Toscana	084	Luso
069	Tuscany	084	Portugal
070	Trentino	085	Azores Islander
071	Umbrian	086	Madeira Islander
072	Valle Daost		
073	Venetian	087	Scotch-Irish
073	Venezia Giulia	087	Scot-Irish
074	San Marino		
		088	Scottish
075	Lapp	088	Orkney Islander
075	Lapland	088	Pict
075	Samelat	088	Scot
		088	Scotland
076	Liechtensteiner	088	Shetland Islander
076	Liechtenstein		
		089	Swedish
077	Luxemburger	089	Sweden
077	Luxemburg	090	Aland Islander
078	Maltese	091	Swiss
078	Gozo	091	Switzerland
078	Malta	092	Suisse
		093	Switzer
079	Manx	094	Schweiz
079	Isle of Man	095	Romansch
		096	Suisse Romane
080	Monegasque	096	Ticino
080	Monaco		
		097	Welsh
081	North Irish	097	Wales
081	Antrim		
081	Armagh	098	Scandinavian
081	Derry	098	Nordic
081	Down	098	Scandinavia
081	Fermanagh		
081	Londonderry	099	Celtic
081	Northern Ireland	100	Albania
081	Orangeman	100	Arberesh
081	Tyrone	100	Gheg
081	Ulster	100	Italo Albanian
082	Norwegian	100	Kosovo

100	Tosc	117	Finno Ugrian
101	Azerbaijani	117	Komi
101	Adzerbaijani	117	Mari
101	Azerbaidzhan	117	Udmurt
101	Azeri	118	Mordovian
		119	Voytak
102	Belorussian	120-121	Gruziia
102	Byelorussian	120	Gruzinets
103	Bulgarian	122	German from Russia
103	Bulgaria	123	Volga
103	Bulgaro Macedonian	123	Black Sea German
103	Eastern Rumelian	123	Volhynian German
104	Carpatho Rusyn	124	Rom
104	Carpatho Rus	124	Boyash
104	Carpatho Russian	124	Cali
104	Carpatho Ruthenian	124	Dom
105	Carpathian	124	Gitanos
		124	Gypsy
106	Rusyn	124	Kalderash
106	Rus	124	Luri
106	Rusin	124	Manouche
106	Rusnak	124	Nat
		124	Romnichal
107	Ruthenian	124	Senti
107	Ruthenia	124	Xoraxaya
108	Cossack	125	Hungarian
108	Don Cossack	125	Hungary
108	Orenburg Cossack	125	Szekler
108	Terek Cossack	126	Magyar
108	Ural Cossack		
		127	Kalmyk
109-110	Croatian	127	Kalmuck
109	Croatia		
109	Dalmatian	128	Latvian
109	Zadar	128	Latvia
		128	Lettish
111	Czech		
112	Bohemian	129	Lithuanian
113	Moravian	129	Jmoud
		129	Lithuania
114	Czechoslovakian		
114	Czechoslovakia	130	Macedonian
114	Tzechoslovakia	130	Macedonia
		130	Slavophone
115	Estonian		
115	Estonia	131	Montenegrin
116	Livonian	131	Orna Gora

132	North Caucasian	153	Slovak
132	Abkhazian	153	Slovakian
132	Adyge	153	Slovjak
132	Avar		
132	Caucasus Mountains	154	Slovene
132	Chechen	154	Slovenec
132	Daghestan	154	Slovenian
132	Darghinian	154	Slovenski
132	Gortsy	155	Sorbian/Wend
132	Ingush	155	Lusatian Serb
132	Kabardinian	155	Sorb
132	Lezghian	155	Wend
132	Tavlintsy	155	Wendish
133	North Caucasian Turkic		
133	Adzharian	156	Soviet Turkic
133	Balkar	156	Soviet Turk
133	Cherkess	157	Bashkir
133	Circassian	158	Chuvash
133	Karacay	159	Gagauz
133-139	Kumyk	160	Mesknetian
140-141	Ossetian	161-162	Tuvinian
		163	Yakut
142	Polish	164	Soviet Union
142	Gorali	164	Union of Soviet Socialist Republics
142	Masurian		
142	Poland		
142	Polonia	165	Tatar
142	Polska	165	Crimean Tatar
143	Kashubian	165	Kazan Tatar
		165	Nogay Tatar
144	Romanian	165	Polish Tatar
144	Romania	165-166	Volga Tatar
144	Transylvania	167	Soviet Central Asia
145	Bessarabian	167	Kurile Islander
145	Dobruja	167	Sakhalin Islander
146	Moldavian	167	Siberian
147	Wallachian		
147	Vlach	168	Turkestanian
		168	Karakalpak
148	Russian	168	Kazak
148	Black Russian	168	Kirghiz
148	Great Russian	168	Tadzhik
148	Red Russian	168	Turcoman
148	Rossiya	168	Turkestanian
148-149	Russia	168	Turkmen
150-151	Muscovite	168	Turkomen
		168	Uiger
152	Serbian	169-170	Uzebeg
152	Serb		
		171	Ukrainian
		171	Little Russian
		171	Malo Russian

171	Ukraine	205	Mallorca
172	Lemko	206	Gallego
172	Lemkian	207	Valencian
173	Bioko	208-209	Canary Islander
174	Husel		
		219	Costa Rican
175	Windish	219	Costa Rica
175	Prekmurje	219-221	Costarricense
175	Windisch		
		222	Guatemalan
176	Yugoslavian	222	Guatemala
176	Jugoslavia		
177	Herzegovinian	223	Honduran
177	Bosanci	223	Honduras
177	Bosnian Muslim		
177	Bosnjaci	224	Nicaraguan
		224	Nicaragua
178	Slavic		
178	Slav	225	Panamanian
179-180	Slavonian	225	Panama
181	Europe N.E.C.	226	Salvadoran
181	Central European	226	El Salvador
181-182	Middle European	226	Salvadorian
183	Northern European		
183-184	North Europe	227	Central American
185	Southern European	227-228	Central America
185-186	South Europe		
187	Western European	229-230	Canal Zone
187-189	West Europe		
190	Eastern European	231	Argentinean
190	Byzantine	231	Argentine
190	East Europe		
191-192	Bukovina	232	Bolivian
193-194	Silesian	232	Bolivia
195	European		
196	Galician	233	Chilean
196-199	Galicia	233	Chile

**200 HISPANIC (OTHER INCLUDING SPAIN)**

200	Spaniard	234	Colombian
200	Espanola	234	Antiochio
200	Iberian	234	Colombia
200	Spain	235	Ecuadorian
201	Andalusian	235	Ecuador
202	Asturian	235	Galapagos Islander
203	Castillian		
		236	Paraguayan
204	Catalonian	236	Paraguay
204	Catalonia		
205	Balearic Islander	237	Peruvian
		237	Peru

238	Uruguayan	218	Aguascalientes
238	Uruguay	218	Baja California
239	Venezuelan	218	Campeche
239	Venezuela	218	Chiapas
240-248	Criollo	218	Chihuahua
240	Criolla	218	Coahuila
249	South American	218	Colima
249	America Del Sur	218	Distrito Federal
249	Sudamerica	218	Durango
250	Latin American	218	Guanajuato
250	America Latina	218	Guerrero
250	Latinoamericana	218	Hidalgo
251	Latin	218	Jalisco
252-260	Latino	218	Mexico
261-270	Puerto Rican	218	Michoacan
261	Boricua	218	Morelos
261	Borinquena	218	Nayarit
261	New York Puerto Rican	218	Nuevo Leon
261	Puerto Rico	218	Oaxaca
261	Puertorriqueno	218	Puebla
271-274	Cuban	218	Querataro
271	Cuba	218	Quintana Roo
271	Cubana	218	San Luis Potosi
271	Guajiro	218	Sinaola
275	Dominican	218	Sonora
275	Dominican Republic	218	Tobasco
275	Donimicana	218	Tamaulipas
275	Santo Domingo	218	Tlaxcala
276-290	Hispanic	218	Vera Cruz
276	Hispano	218	Yucatan
291	Spanish	218	Zacatecas
292	Californio	300	<b>CENTRAL AND SOUTH AMERICA, AND WEST INDIES (EXCEPT HISPANIC)</b>
293	Tejano	300	Bahamian
293	Tejana	300	Bahamas
294	Nuevo Mexicano	301	Barbadian
295-299	Spanish American	301	Barbados
210	<b>MEXICAN</b>	302	Belizean
211	Mexican American	302	Belize
212	Mexicano	302	British Honduran
213	Chicano	303	Bermudan
214-217	La Raza	303	Bermuda
218	Mexican State	304-307	Cayman Islander
		308-309	Jamaican
		308	Jamaica

310	Dutch West Indies	333	Guadeloupe Islander
310	Black Dutch	333	Martinicois
310	Netherlands Antilles	333	Martinique Islander
311	Aruba Islander	334	Cayenne
311	Bonaire Islander	334	French Guiana
311	Curacao Islander		
312-313	St. Maarten Islander	334	French Guianese
312	Saba Islander	334	Guyane
312	St. Eustatius Islander		
314	Trinidadian Tobagonian	335	West Indian
315	Trinidadian	335	West Indies
316	Tobagonian	335	Arawak
		335	Caribs
317	U.S. Virgin Islander	335	Caribbean
318	St. Croix Islander	335	Garfuna
318	Crucian		
318	Santa Cruz	336-359	Haitian
319	St. John Islander	336	Haiti
320	St. Thomas Islander		
		360	Brazilian
321	British West Indies	360	Brazil
321	British Virgin Islander		
321	Tortolan	365-369	San Andres
321	Virgin Gorda		
321	Aneгада	370-374	Guyanese
321	Jost Van Dyke	370	British Guiana
321	Peter and Norman	370	Guyana
322	British West Indian		
322	British West Indies	375-379	Providencia
323	Turks and Caicos Islander		
324	Anguilla Islander	380	Surinam
325	Antigua and Barbuda	380	Dutch Guiana
325	Antigua	380-399	Netherlands Guiana
325	Barbuda		
325	Redonda Islander	400	<b>NORTH AFRICA, SOUTHWEST ASIA, AND SUBSAHARAN AFRICA</b>
326	Montserrat Islander	400-401	Algerian
327	Kitts/Nevis Islander	400	Algeria
327	St. Christopher Islander		
327	Sombrero Islander	402-403	Egyptian
327	St. Kitts	402	Copt
327	Nevis	402	Egypt
328	Dominica Islander	402	Fellahin
329	Grenadian		
329	Grenada Islander	404-405	Libyan
330	Vincent/Grenadine Islander	404	Libya
330	St. Vincent Island		
330	Vincentian	406	Moroccan
330	Grenadines Islander	406	Moor
331	St. Lucia Islander	407	Ifni
332	French West Indies		
332	French West Indian		

408-410	Tunisian	434	Turkish
408	Tunisia	434	Turkey
411	North African	435	Yemeni
412	Alhucemas	435	Yemen Arab Republic
412	Ceuta	436	Omani
412	Chafarinas	437	Muscat
412	Melilla	438	Trucial States
413	Berber	438	Trucial Oman
414	Rio De Oro	439-440	Qatar
414	Sagua El Hamra	441	Bedouin
415	Bahraini	442	Kurdish
415	Bahrain	444-464	Kuria Muria Islander
416	Iranian	465	Palestinian
416	Iran	466	Gaza Strip
416	Parsi	467-469	West Bank
416	Persia	470	South Yemen
417-418	Iraqi	470	Democratic Republic of Yemen
417	Iraq	471-479	Aden
419-420	Israeli	480	United Arab Emirates
419	Israel	480	Abu Dhabi
421	Jordanian	480	Ajman
421	Hashemite	480	Dubai
421	Jordan	480	Fujairah
422	Transjordan	480	Ras al Kaimah
423-424	Kuwaiti	480	Sharjah
423	Kuwait	480-481	Umm Al Qaiwain
425-426	Lebanese	482-489	Assyrian
425	Lebanon	482	Aramean
425	Maronite	482	Assyria
427	Saudi Arabian	482	Chaldean
427-428	Saudi Arabia	482	Chaldo
429-430	Syrian	482	Jacobite
429	Djebel Druze	482	Kaldany
429	Latakia	482	Kaldu
429	Syria	482	Kasddem
431-433	Armenian	482	Kasdu
431	Armenia	482	Nestorian
		482	Telkeffee
		490-494	Mideast
		490	Middle Eastern
		495	Arab
		495	Arabia
		496-499	Arabic

500 Angolan  
 500 Angola  
 500-501 Cabinda  
  
 502 Benin  
 502 Dahomey  
 502-503 Fon  
  
 504-505 Botswana  
 504 Bechuana  
  
 506-507 Burndian  
 506 Urundi  
  
 508-509 Cameroonian  
 508 Cameroon  
 508 Fako  
  
 510-511 Cape Verdean  
 510 Brava  
 510 Cape Verde Islander  
  
 512 Central African Republic  
 512 Ubangi Shari  
  
 513-514 Chadian  
 513 Chad  
  
 515 Congolese  
 516-518 Congo Brazzaville  
  
 519 Djibouti  
 519 Afars and Issas  
 519 Jibuti  
  
 520 Equatorial Guinea  
 520 Rio Muni  
 521 Corsico Islander  
 521 Annobon Islander  
 521 Bioko Islander  
 521 Elobeis Islander  
 521 Fernando Po Islander  
  
 522 Ethiopian  
 522 Abyssinia  
 522 Ethiopia  
 523-529 Eritrean  
  
 525-526 Gabonese  
 525 Gabon

527-528 Gambian  
 527 Gambia  
  
 529 Ghanian  
 529 Ashanti  
 529 Ghana  
 529 Gold Coast  
 529 Twi  
  
 530 Guinean  
 530 Guinea  
  
 531 Guinea Bissau  
  
 532-533 Ivory Coast  
  
 534-537 Kenyan  
 534 Kenya  
  
 538-540 Lesotho  
 538 Basuto  
  
 541-542 Liberian  
 541 Liberia  
  
 543-544 Madagascan  
 543 Madagascar  
  
 545 Malawian  
 545 Malawi  
  
 546 Malian  
 546 Mali  
  
 547 Mauritanian  
 547 Mauritania  
  
 549 Mozambican  
 549 Mozambique  
 550 Namibian  
 550 Namibia  
  
 551-552 Niger  
  
 553 Nigerian  
 553 Nigeria  
 554 Fulah  
 554 Fulani  
 555 Hausa  
 556 Ibo  
 557 Tiv  
 558-560 Yoruba

561-563	Rwandan	591	Zairian
561	Rwanda	591	Belgian Congo
564-565	Senegalese	591	Congo Kinshasa
564	Dakar	591	Zaire
564	Senegal	592	Zambian
566-567	Sierra Leonean	592	Zambia
566	Sierra Leone	593	Zimbabwean
568	Somalian	593	Rhodesia
568	Somali Republic	593	Zimbabwe
568	Somalia	594	African Islands (Except Madagascar)
569	Swaziland	594	Comoros Islander
570	South African	594	Principe Islander
571	Union of South Africa	594	Reunion Islander
571	Orange Free State	594	Sao Tome Islander
571	Pretoria	594	Seychelles Islander
571	Transkei	594	St. Helena Islander
571	Transvaal	594	St. Pierre Islander
572	Afrikaner	594	Tristan De Cunha Islander
572	Boer	595	Mauritian
573	Natalian	595	Mauritius Islander
574-575	Zulu	596	Subsaharan African N.E.C.
574	Zululand	596	Central African
576	Sundanese	596	Central Africa
576	Sudan	596	Middle Congo
577	Dinka	597	East African
578	Nuer	597	East Africa
579	Fur	597	Galla
579	Darfur	597	Kikuyu
580-581	Baggara	597	Masai
582	Tanzanian	598	West African
582	Tanzania	598	West Africa
583	Tanganyikan	599	African
584-585	Zanzibar Islander	599	Africa
586	Togo	600	<b>ASIA (OTHER)</b>
586	Togoland	600	Afghanistan
588	Ugandan	601	Baluchistan
588	Lugbara	602	Pathan
588	Uganda	603-606	Bangladeshi
589	Upper Voltan	603	Bangladesh
590	Volta	603	East Pakistan
		607-608	Bhutanese
		607	Bhotan

609-614 Nepali	700 Mon
609 Nepal	700-701 Palaung
	702 Shan
615 Asian Indian	703 Cambodian
615 Behar	703 Cambodia
615 Dravidian	703 Kampuchean
615 Hindu	704-705 Khmer
615 Indo Aryan	
615 Sikh	765 Laotian
616-617 Kashmir	765 Lao
618-619 Bengali	765 Laos
620-621 East Indian	766-767 Meo
622 Andaman Islander	
622-623 Nicobar Islander	768 Hmong
624-625 Andhra Pradesh	768 Hmongtana
626-627 Assamese	768 Laohmong
628-629 Goanese	768-769 Mong
630-631 Gujarati	
632-633 Karnatakari	770 Malaysian
634-635 Keralan	770 Malaysia
636-637 Madhya Pradesh	770 Sakai
638-639 Maharashtra	770 Semang
640-641 Madras	770 Senoi
642-643 Mysore	
644-645 Nagaland	771 North Borneo
646-647 Orissa	771 Brunei
648-649 Pondicherry	771 Sabah
650-651 Punjab	771-773 Sarawak
652-653 Rajasthan	
654-655 Sikkim	774-775 Singaporean
656-657 Tamil Nadu	774 Singapore
658-674 Uttar Pradesh	
675-679 East Indies	776 Thai
	776 Siam
680-689 Pakistani	776 Thailand
680 Jammu	777 Black Thai
680 Sind	777 Thai Dam
680 West Pakistan	778-781 Western Lao
690 Sri Lankan	782 Taiwanese
690 Ceylon	782 Taiwan
690 Sri Lanka	
691 Singhalese	783-784 Formosan
692-694 Vedda	783 Formosa
695 Maldivian	790-791 Montagnard
695 Kampuchean	790 Cham
695-699 Maldive Islander	
	792 Indo Chinese
700 Burmese	792 Indochina
700 Cachin	
700 Karen	

- 793 Eurasian  
793 Indoeuropean
- 794 Amerasian
- 795 Asian  
795 Asia  
795-799 Orient
- 706 CHINESE**
- 706 China  
706 Jehol  
706 Sino Chinese  
706 Yao  
707 Cantonese  
708 Manchuria  
709-711 Mandarin
- 712 Monogolian  
712 Buriat  
712-713 Mongolia
- 714 Tibetan  
714-715 Tibet
- 716 Hong Kong  
716 Hong Kong Chinese  
716 Eastern Archipelago  
716-717 Riau Islander
- 718-719 Macao
- 720 FILIPINO**
- 720 Cebuanos  
720 Philippines  
720-729 Tagalog
- 730 Indonesian  
730 Ascension Islander  
730 Bangka  
730 Billiton  
730 Celebes Islander  
730 Dutch East Indian  
730 Indonesia  
730 Molucca Islander  
730 Portuguese Timor  
730 Spice Islander  
730-731 Sulawesi Islander  
732-733 Boreno
- 734-735 Java  
736-739 Sumatra
- 740 JAPANESE**
- 740 Japan  
740 Nipponese  
741 Issei  
742 Nisei  
743 Sansei  
744 Yonsei  
745 Gonsei  
746-747 Ryukyu Islander  
746 Northern Ryukyu Islander  
748-749 Okinawan  
748 Okinawa
- 750 KOREAN**
- 750 Chosen  
750-789 Korea
- 785 VIETNAMESE**
- 785 Anam  
785 Vietnam  
786 Katu  
787 Ma  
788-789 Mnong
- 800 PACIFIC (AUSTRALIA, NEW ZEALAND, ETC.)**
- 800 Australian  
800 Australia  
800 New South Wales  
800 Northern Territory  
800 Queensland  
800 Victoria  
801 Tasmanian  
802 Australian Aborigine
- 803-807 New Zealander  
803 New Zealand
- 808 Polynesian  
808 Norfolk Islander  
809 Kapingamarangan  
809 Nukuoroan  
810 Maori
- 815 Tongan  
815 Tonga

816 Tokelauan  
 816 Tokelau Islander  
  
 817 Cook Islander  
  
 818 Tahitian  
 818 French Polynesia  
 818 Society Islander  
  
 819 Niuean  
  
 820 Micronesian  
 820 Micronesia Islander  
 820 U.S. Trust Territory of the Pacific  
  
 823 Saipanese  
 823 Northern Marianas Islander  
 823 Saipan Islander  
 826 Kosraean  
  
 825 Marshallese  
 825 Marshall Islander  
  
 830 Carolinian  
 830 Eauripikese  
 830 Faisian  
 830 Ifalukese  
 830 Lamotrekese  
 830 Satawalese  
 830 Ulithian  
 830 Woleaian  
  
 831 Kiribatese  
 831 Gilbertese  
  
 832 Nauruan  
 833 Tarawa Islander  
  
 834-839 Tinian  
  
 840 Melanesian  
  
 841-842 Fijian  
 841 Fiji  
  
 843 New Guinean  
 844 Papuan  
  
 845 Solomon Islander  
 845 British Solomons  
  
 846 New Caledonian

847-849 Vanuatuan  
 847 New Hebrides Islander  
 847 Ni Vanuatu  
  
 860 Pacific  
 860 Oceania  
 861 See Samoan (code 814)  
 862-899 Chamolinian

**811 HAWAIIAN**

811 Mixed Hawaiian  
 811-812 Native Hawaiian  
 813 Part Hawaiian

**814 SAMOAN**

814 Samoa  
 861 Part-Samoan

**821 CHAMORRO**

821 Guam  
 822 Chamorro Islander

**824 PALAUAN**

824 Palauan

**827 PONAPEAN (POHNPEIAN)**

827 Mokilese  
 827 Ngatikese  
 827 Pingelapese

**828 TRUKESE (CHUUKESE)**

828 Hall Islander  
 828 Mortlockese  
 828 Namanouito  
 828 Pulapese  
 828 Pulasukese  
 828 Pulwatese  
 828 Tamatamian  
 828 Ulul

**829 YAPESE**

829 Yapese

**850 PACIFIC ISLANDER**

- 850 Campbell Islander
- 850 Christmas Islander
- 850 Kermadec Islander
- 850 Midway Islander
- 850 Phoenix Islander
- 850-859 Wake Islander

**900-998 NORTH AMERICA (EXCEPT HISPANIC)**

**900 BLACK**

- 900 Black
- 900 African American
- 900 Afro American
- 901 Afro
- 902 African American
- 903 Black
- 904 Negro
- 905 Nonwhite
- 906 Colored
- 906 Bilalian
- 906 Nigritian
- 907 Creole
- 908-912 Mulatto

**913 NORTH AMERICAN (OTHER)**

- 913 Native American
- 913 Central American Indian
- 914-918 South American Indian
- 919 Cherokee
- 920 American Indian
- 921 Aleut
- 922 Eskimo
- 923 Inuit
  
- 929 Pennsylvania German
- 929 Amish
- 929 Pennsylvania Dutch
- 929 Mennonite
- 929 Hutterite
  
- 930 Greenlander
  
- 931 Canadian
- 931 Albertan
- 931 British Columbia
- 931 Canada
- 931 Labrador
- 931 Manitoba

- 931 New Brunswick
- 931 Ontario
- 931 Prince Edward Islander
- 931 Saskatchewan
- 931-932 Yukon
- 933 Newfoundland
- 934 Nova Scotia
- 935 French Canadian
- 935 Canadien
- 935 Franco American
- 935 Quebec
- 935 Quebécois

- 936 Acadian
- 936 Acadia
- 937-938 Cajun
  
- 939 American

- 940 United States
- 941 Alabama
- 942 Alaska
- 943 Arizona
- 944 Arkansas
- 945 California
- 946 Colorado
- 947 Connecticut
- 948 District of Columbia
- 949 Delaware
- 950 Florida
- 951 Idaho
- 952 Illinois
- 953 Indiana
- 954 Iowa
- 955 Kansas
- 956 Kentucky
- 957 Louisiana
- 958 Maine
- 959 Maryland
- 960 Massachusetts
- 961 Michigan
- 962 Minnesota
- 963 Mississippi
- 964 Missouri
- 965 Montana
- 966 Nebraska
- 967 Nevada
- 968 New Hampshire
- 969 New Jersey
- 970 New Mexico
- 971 New York
- 972 North Carolina

973 North Dakota  
 974-975 Ohio  
 976 Oklahoma  
 977 Oregon  
 978 Pennsylvania  
 979 Rhode Island  
 980 South Carolina  
 981 South Dakota  
 982 Tennessee  
 983 Texas  
 984 Utah  
 985 Vermont  
 986 Virginia  
 987 Washington  
 988 West Virginia  
 989 Wisconsin  
 990 Wyoming  
 991-992 Georgia  
  
 993 Southerner  
  
 994 North American  
 994 North America  
  
 995 Mixture  
 996-997 Uncodable Entries  
 998 Other Responses  
 998 Adventist  
 998 Agnostic  
 998 Apostolic  
 998 Ashkenazim Jew  
 998 Atheist  
 998 Bahai  
 998 Baptist  
 998 Brethren  
 998 Buddhist  
 998 Catholic  
 998 Christian  
 998 Christian Scientist  
 998 Congregationalist  
 998 Episcopal  
 998 Evangelist  
 998 Hebrew  
 998 Holiness  
 998 Islam  
 998 Jain  
 998 Jehovahs Witnesses  
 998 Jewish  
 998 Latter Day Saints  
 998 Lutheran  
 998 Methodist  
 998 Mormon

998 Muslim  
 998 Orthodox  
 998 Pentecostal  
 998 Presbyterian  
 998 Protestant  
 998 Quaker  
 998 Roman Catholic  
 998 Salvation Army  
 998 Sephardic  
 998 Seventh Day Adventist  
 998 Shiite  
 998 Unitarian  
 998 Yiddish  
 998 Zoroastrian

**924 WHITE**

924 Caucasian  
 925 Anglo  
 925 Swamp Yankee  
 925-926 Wasp  
 927 Applachian  
 927 Hillbilly  
 928 Aryan

**999 NOT REPORTED**

## GROUP QUARTERS

This section contains the alphabetical code list for group quarters. The group quarters code list was used by special place prelist enumerators to classify each type of group quarters. Each group quarters code is a two-digit number followed by either an "I" (institutional) or "N" (noninstitutional) suffix. The group quarters codes listed in the second column are for staff residing in group quarters.

GQ codes	Staff residents GQ codes	
87-N	--	<p><b>A. College Quarters Off Campus</b> (Code only if occupied by 10 or more unrelated persons. If less than 10, these are classified as a housing unit.)</p> <p><b>B. Correctional Institutions</b></p>
22-I	22-N	1. <i>Federal Detention Centers:</i> Including Park Police, Bureau of Indian Affairs, Immigration and Naturalization Service (INS) centers, INS detention centers operated within local jails, and State and Federal prisons. INS detention centers also include INS Federal Alien Detention Facilities, INS Service Processing Centers, and INS Contract Detention Centers used to detain aliens under exclusion or deportation proceedings and aliens who require custodial departures.
21-I	21-N	2. <i>Federal Prisons:</i> Including criminally insane wards operated by a Federal prison within a mental or general hospital. If ward is not operated by a prison, code according to paragraph H4. For detention centers within Federal prisons, see B1 above.
23-I	23-N	3. <i>Halfway Houses:</i> Operated for correctional purposes, including probation and restitution centers, prerelease centers, and community-residential treatment centers.
27-I	27-N	4. <i>Local (County/City) Jails and Other Local Confinement Facilities:</i> Including work farms used to hold persons awaiting trial or serving time on relatively short sentences (usually of a year or less), and jails run by private businesses under contract.
95-I	95-N	5. <i>Military Stockades, Jails</i>
28-I	28-N	6. <i>Police Lockups:</i> Temporary-holding facilities or other facilities that hold persons only if they have not been formally charged in court (usually detained less than 48 hours).
24-I	24-N	7. <i>State Prisons:</i> Prisons run by private businesses (under contract); including criminally insane wards operated by a State prison within a mental or general hospital. If ward is not operated by a prison, code according to paragraph G4.
20-I	20-N	8. <i>Other Types of Correctional Institutions:</i> Including private correctional facilities and correctional facilities specifically for alcohol/drug abuse (use only as a last resort if no other type code applies).

GQ codes	Staff residents GQ codes	
91-N	--	C. Crews of Civilian Vessels
		D. Dormitories
92-N	--	1. <i>Agriculture Workers' Dormitories on Farms:</i> Including migratory farm workers' camps on farms, bunkhouses for ranch hands, and other dormitories on farms including those on "tree farms."
87-N	--	2. <i>College Student Dormitories, and Fraternity and Sorority Houses (on campus):</i> Including residential quarters for those in religious orders.
86-N	--	3. <i>Dormitories for Nurses and Interns in General and Military Hospitals</i>
97-N	--	4. <i>Military Quarters on Base:</i> Including barracks, bachelor officers quarters, unaccompanied officer personnel housing, unaccompanied enlisted personnel housing, and similar noninstitutional group living quarters for military personnel.
93-N	--	5. <i>Other Workers' Dormitories:</i> Including logging camps, construction workers' camps, firehouse dormitories, job-training camps, energy enclave (Alaska only), Alaskan pipeline camps, nonfarm migratory workers' camps, such as workers who lay oil and gas pipelines.
		F. <b>Elderly:</b> Skilled nursing facilities, intermediate care facilities, long-term care rooms in wards or buildings on the grounds of hospitals, nursing, convalescent, and rest homes including soldiers', sailors', veterans', and fraternal or religious homes for the aged, with or without nursing care.
		NOTE: Do not include dormitories for nurses and interns; see paragraph D3.
		1. <i>Public Ownership</i>
62-I	62-N	a. Federal ownership: Including Veterans' Administration, domiciliary homes, and U.S. Naval homes.
63-I	63-N	b. State ownership
64-I	64-N	c. County or city ownership
65-I	65-N	d. Don't know if Federal, State, or county-city ownership (use only as a last resort if no other type code applies).
		2. <i>Private Ownership</i>
66-I	66-N	a. Private not-for-profit
67-I	67-N	b. Private for profit

GQ codes      Staff residents  
GQ codes

**E. Elderly--Con.**

- |      |      |  |
|------|------|--|
| 60-I | 60-N | c. Don't know if for profit or not (use only as a last resort if no other type code applies).                                  |
| 61-I | 61-N | 3. <i>Don't Know if Federal, State, Local, or Private Ownership</i> (use only as a last resort if no other type code applies). |

**F. Group Homes:** Including those providing community-based care and supportive services such as halfway houses for the groups listed below. (Code only if occupied by 10 or more unrelated persons. If less than 10, these are classified as a housing unit.)

- |      |    |   |
|------|----|---|
| 76-N | -- | 1. <i>Drug/Alcohol Abuse:</i> Including group homes, detoxification centers, quarterway houses such as residential treatment facilities that work closely with an accredited hospital, halfway houses, recovery homes for ambulatory, and mentally competent recovering alcoholics who may be re-entering the work force. (Ask usual home elsewhere in these places. Include as living there, only persons who have no usual home elsewhere.) |
| 29-N | -- | 2. <i>Maternity</i> (Homes for unwed mothers) (Ask usual home elsewhere in these places. Include as living there, only persons who have no usual home elsewhere.)   |
|      |    | 3. <i>Mentally Ill</i>  |
| 16-N | -- | a. Federal  |
| 17-N | -- | b. State  |
| 18-N | -- | c. Private  |
| 19-N | -- | d. Don't know if public/private ownership (use only as a last resort if no other type code applies).  |
|      |    | 4. <i>Mentally Retarded</i>   |
| 56-N | -- | a. Federal  |
| 57-N | -- | b. State  |
| 58-N | -- | c. Private  |
| 59-N | -- | d. Don't know if public/private ownership (use only as a last resort if no other type code applies).  |

GQ codes      Staff residents  
GQ codes

**F. Group Homes--Con.**

5. *Physically Handicapped*

- |      |    |   |
|------|----|---|
| 72-N | -- | a. Public ownership   |
| 73-N | -- | b. Private ownership  |
| 74-N | -- | c. Don't know if public/private ownership (use only as a last resort if no other type code applies).  |
| 79-N | -- | 6. <i>Other Group Homes:</i> Including communes, foster care homes and job corps centers with 10 or more unrelated children. Do not include emergency housing for persons with no other home (use only as a last resort if no other type code applies). |

**G. Hospitals/Schools for the Handicapped**

1. *Dormitories for Nurses and Interns in General and Military Hospitals*

86-N      --

2. *Drug/Alcohol Abuse:* Including hospitals, and hospital wards in psychiatric and general hospitals. These facilities/wards are in a medical setting equipped and designed for the diagnosis and treatment of medical or psychiatric illnesses associated with alcohol or drug abuse. Patients receive supervised medical/nursing care from a formally trained staff. For group homes, see paragraph F.

70-I      70-N

3. *Hospitals for Chronically Ill*

54-I      86-N

a. Military hospitals or wards for chronically ill

55-I      86-N

b. Other hospitals or wards for chronically ill: Including tuberculosis hospitals or wards, wards in general and Veterans' Administration hospitals for the chronically ill, neurological wards, hospices; wards for patients with Hansen's Disease (leprosy) and other incurable diseases; and other unspecified wards for the chronically ill. Do not include mental or alcohol/drug abuse hospitals or wards.

4. *Mentally Ill (Psychiatric):* Hospitals or wards, including wards for the criminally insane not operated by a prison and psychiatric wards of general hospitals and veterans' hospitals. This is a medical setting designed for the treatment of mental illness. Patients receive supervised and medical/nursing care from a formally trained staff. Code wards for the mentally retarded according to paragraph G5. Do not include hospitals or wards for alcohol/drug abuse; see paragraph G2.

46-I      46-N

a. Federal ownership

47-I      47-N

b. State or local ownership

GQ codes      Staff residents  
GQ codes

**G. Hospitals/Schools for the Handicapped--Con.**

- |      |      |   |
|------|------|---|
| 48-I | 48-N | c. Private ownership  |
| 45-I | 45-N | d. Don't know if Federal, State, local, or private ownership (use only as a last resort if no other type code applies).   |
|      |      | 5. <i>Mentally Retarded:</i> Schools, hospitals, wards, including wards in hospitals for the mentally ill, and intermediate care facilities for the mentally retarded. This is in a suitably-equipped setting and with supervised and medical/nursing care from a formally trained staff. |
| 41-I | 41-N | a. Federal ownership  |
| 43-I | 43-N | b. State or local ownership   |
| 42-I | 42-N | c. Private ownership  |
| 40-I | 40-N | d. Don't know if Federal, State, local, or private ownership (use only as a last resort if no other type code applies).   |
|      |      | 6. <i>Physically Handicapped:</i> Including schools, hospitals, or wards in a suitably-equipped medical setting and designed primarily for the physically handicapped who receive supervised care and medical/nursing care from a formally trained staff.                                 |
|      |      | a. Institutions for the deaf  |
| 38-I | 38-N | (1) Public ownership  |
| 39-I | 39-N | (2) Private ownership   |
| 37-I | 37-N | (3) Don't know if public/private ownership (use only as a last resort if no other type code applies).   |
|      |      | b. Institutions for the blind   |
| 35-I | 35-N | (1) Public ownership  |
| 36-I | 36-N | (2) Private ownership   |
| 34-I | 34-N | (3) Don't know if public/private ownership (use only as a last resort if no other type code applies).   |

GQ codes      Staff residents GQ codes

**G. Hospitals/Schools for the Handicapped--Con.**

c. Orthopedic wards and institutions for physically handicapped: Including accident victims, and persons with polio, cerebral palsy, and muscular dystrophy.

- |      |      |     |   |
|------|------|-----|---|
| 32-I | 32-N | (1) | Public ownership  |
| 33-I | 33-N | (2) | Private ownership   |
| 31-I | 31-N | (3) | Don't know if public/private ownership (use only as a last resort if no other type code applies). |

53-I      86-N      7. *Wards in General and Military Hospitals for Patients Who Have No Usual Home Elsewhere:* Including maternity, neonatal, pediatric (including wards for boarder babies), military, surgical wards, and other purpose wards of hospitals and wards for infectious diseases.

Note: Do not include long-term care rooms for the elderly in wards or buildings on the grounds of hospitals, see paragraph E.

**H. Juvenile Institutions: Including homes, schools, and hospitals.**

1. *Long-Term Care* (length of stay usually more than 30 days)

a. Neglected, abused, and dependent children: Including orphanages, homes, or residential care.

- |      |      |     |   |
|------|------|-----|---|
| 03-I | 03-N | (1) | Public ownership  |
| 04-I | 04-N | (2) | Private ownership   |
| 02-I | 02-N | (3) | Don't know if public/private ownership (use only as a last resort if no other type code applies). |

05-I      05-N      b. Emotionally disturbed children: Including residential treatment centers (psychiatric care provided).

c. Delinquent children: Placed by court, parents, or social service agency, in residential training school or home, including industrial schools, camps, or farms.

12-I      12-N      (1) Public ownership: Committed by courts.

15-I      15-N      (2) Private ownership: Some are committed by courts, others are referred by parents or social service agencies because of delinquent behavior.

GQ codes      Staff residents  
GQ codes

**H. Juvenile Institutions--Con.**

- |      |      |   |
|------|------|---|
| 11-I | 11-N | (3) Don't know if public/private ownership (use only as a last resort if no other type code applies).   |
|      |      | 2. <i>Short-term</i> (length of stay usually 30 days or less)   |
| 10-I | 10-N | Delinquent children: Including those receiving temporary care in detention or diagnostic centers pending court disposition of case.                                       |
| 01-I | 01-N | 3. <i>Don't Know Type of Juvenile Institution</i> : Including homes, schools, hospitals, or wards for children (use only as a last resort if no other type code applies). |

**I. Military Quarters**

- |      |      |   |
|------|------|---|
|      |      | 1. On Base  |
| 97-N | --   | a. Barracks, bachelor officers quarters, unaccompanied officer personnel housing, unaccompanied enlisted personnel housing, and similar noninstitutional group living quarters for military personnel |
| 96-N | --   | b. Transient quarters (noninstitutional) for temporary residents (military or civilian)   |
| 86-N | --   | c. Dormitories for nurses and interns in general military hospitals   |
| 54-I | 86-N | d. Hospitals or wards for chronically ill   |
| 95-I | 95-N | e. Stockades and jails  |

- |      |    |                          |
|------|----|--------------------------|
| 98-N | -- | 2. <i>Military Ships</i> |
|------|----|--------------------------|

90-N	--	<b>J. Natural Disaster:</b> Including those temporarily displaced by a natural disaster, such as "Hurricane Hugo."
------	----	--

89-N	--	<b>K. Religious Group Quarters:</b> Including convents, monasteries, and rectories. Members of religious orders who live in a dormitory at a hospital or college were classified according to the type of place where they live, such as 86-N if at a general hospital, or 87-N if at a college. (Code only if occupied by 10 or more unrelated persons. If less than 10, these are classified as a housing unit.)
------	----	--

80-N	--	<b>L. Rooming and Boarding Houses</b> (Code only if occupied by 10 or more unrelated persons. If less than 10, these are classified as a housing unit.)
------	----	--

**M. Schools for the Handicapped:** See paragraphs H5 and H6.

GQ codes      Staff residents GQ codes

- |      |    |   |
|------|----|---|
| 94-N | -- | <p>N. <b>Shelter/Street Night Enumeration ("S-Night"):</b> See paragraph F.</p> <p>O. <b>Other Nonhousehold Living Situations:</b> Including places not covered by other GQ codes shown herein, such as commercial or public campgrounds, campgrounds at racetracks, fairs, and carnivals, hostels, and similar transient sites. (Ask usual home elsewhere in these places. Include as living there only persons who have no usual home elsewhere.)</p> <p>P. <b>Staff of Institutions:</b> Including staff personnel residing in group quarters. Code according to the appropriate type of group quarters shown under the column "Staff residents GQ codes." Staff residents are coded with an "N" suffix.</p> |
|------|----|---|

Note: Do not assign GQ codes to staff residents in group quarters where a "--" is shown.

## INDUSTRY

The list presents the industrial classification developed for the 1990 Census of Population and Housing. There are 236 categories for the employed, with 1 additional category for the "experienced unemployed who last worked in 1985 or earlier," and 7 additional categories for the Armed Forces. These categories are aggregated into 13 major groups. The classification is developed from the 1987 Standard Industrial Classification (SIC). The numbers in parentheses after the industry title are the SIC Code(s). "n.e.c." is the abbreviation for not elsewhere classified.

### 000-039                    AGRICULTURE, FORESTRY, AND FISHERIES

000-010                    Agricultural production, crops (01)  
011                        Agricultural production, livestock (02)  
012                        Veterinary services (074)  
013-020                    Landscape and horticultural services (078)  
021-030                    Agricultural services, n.e.c. (071, 072, 075, 076)  
031                        Forestry (08)  
032-039                    Fishing, hunting, and trapping (09)

### 040-059                    MINING

040                        Metal mining (10)  
041                        Coal mining (12)  
042                        Oil and gas extraction (13)  
043-059                    Nonmetallic mining and quarrying, except fuel (14)

### 060-099                    CONSTRUCTION (15, 16, 17)

### 100-399                    MANUFACTURING

100-229                    Nondurable Goods

100-129                    Food and kindred products  
100                        Meat products (201)  
101                        Dairy products (202)  
102-109                    Canned, frozen and preserved fruits and vegetables (203)  
110                        Grain mill products (204)  
111                        Bakery products (205)  
112-119                    Sugar and confectionery products (206)  
120                        Beverage industries (208)  
121                        Miscellaneous food preparations and kindred products (207, 209)  
122-129                    Not specified food industries

130-131                    Tobacco manufactures (21)

132-150                    Textile mill products  
132-139                    Knitting mills (225)  
140                        Dyeing and finishing textiles, except wool and knit goods (226)  
141                        Carpets and rugs (227)  
142-149                    Yarn, thread, and fabric mills (221-224, 228)  
150                        Miscellaneous textile mill products (229)

100-399	<b>MANUFACTURING--Con.</b>
151-159	Apparel and other finished textile products
151	Apparel and accessories, except knit (231-238)
152-159	Miscellaneous fabricated textile products (239)
160-170	Paper and allied products
160	Pulp, paper, and paperboard mills (261-263)
161	Miscellaneous paper and pulp products (267)
162-170	Paperboard containers and boxes (265)
171-179	Printing, publishing, and allied industries
171	Newspaper publishing and printing (271)
172-179	Printing, publishing, and allied industries, except newspapers (272-279)
180-199	Chemicals and allied products
180	Plastics, synthetics, and resins (282)
181	Drugs (283)
182-189	Soaps and cosmetics (284)
190	Paints, varnishes, and related products (285)
191	Agricultural chemicals (287)
192-199	Industrial and miscellaneous chemicals (281, 286, 289)
200-209	Petroleum and coal products
200	Petroleum refining (291)
201-209	Miscellaneous petroleum and coal products (295, 299)
210-219	Rubber and miscellaneous plastics products
210	Tires and inner tubes (301)
211	Other rubber products, and plastics footwear and belting (302-306)
212-219	Miscellaneous plastics products (308)
220-229	Leather and leather products
220	Leather tanning and finishing (311)
221	Footwear, except rubber and plastic (313, 314)
222-229	Leather products, except footwear (315-317, 319)
230-399	Durable Goods
230-241	Lumber and wood products, except furniture
230	Logging (241)
231	Sawmills, planing mills, and millwork (242, 243)
232-240	Wood buildings and mobile homes (245)
241	Miscellaneous wood products (244, 249)
242-249	Furniture and fixtures (25)

100-399

**MANUFACTURING--Con.**

250-269

Stone, clay, glass, and concrete products

250

Glass and glass products (321-323)

251

Cement, concrete, gypsum, and plaster products (324, 327)

252-260

Structural clay products (325)

261

Pottery and related products (326)

262-269

Miscellaneous nonmetallic mineral and stone products (328, 329)

270-309

Metal industries

270

Blast furnaces, steelworks, rolling and finishing mills (331)

271

Iron and steel foundries (332)

272-279

Primary aluminum industries (3334, part 334, 3353-3355, 3363, 3365)

280

Other primary metal industries (3331, 3339, part 334, 3351, 3356, 3357, 3364, 3366, 3369, 339)

281

Cutlery, handtools, and general hardware (342)

282-289

Fabricated structural metal products (344)

290

Screw machine products (345)

291

Metal forgings and stampings (346)

292-299

Ordnance (348)

301-309

Not specified metal industries

310-339

Machinery and computing equipment

310

Engines and turbines (351)

311

Farm machinery and equipment (352)

312-319

Construction and material handling machines (353)

320

Metalworking machinery (354)

321

Office and accounting machines (3578, 3579)

322-330

Computers and related equipment (3571-3577)

331

Machinery, except electrical, n.e.c. (355, 356, 358, 359)

332-339

Not specified machinery

340-350

Electrical machinery, equipment, and supplies

341

Radio, TV, and communication equipment (365, 366)

342-349

Electrical machinery, equipment, and supplies, n.e.c. (361, 362, 364, 367, 369)

350

Not specified electrical machinery, equipment, and supplies

351-370

Transportation equipment

351

Motor vehicles and motor vehicle equipment (371)

352-359

Aircraft and parts (372)

360

Ship and boat building and repairing (373)

361

Railroad locomotives and equipment (374)

362-369

Guided missiles, space vehicles, and parts (376)

370

Cycles and miscellaneous transportation equipment (375, 379)

371-389

Professional and photographic equipment, and watches

371

Scientific and controlling instruments (381, 382 except 3827)

372-379

Medical, dental, and optical instruments and supplies (3827, 384, 385)

380

Photographic equipment and supplies (386)

381-389

Watches, clocks, and clockwork operated devices (387)

390

Toys, amusement, and sporting goods (394)

100-399	<b>MANUFACTURING--Con.</b>
391	Miscellaneous manufacturing industries (39 except 341, 343, 347, 349, 363, 394)
392-399	Not specified manufacturing industries
400-499	<b>TRANSPORTATION, COMMUNICATIONS, AND OTHER PUBLIC UTILITIES</b>
400-439	Transportation
400	Railroads (40)
401	Bus service and urban transit (41, except 412)
402-409	Taxicab service (412)
410	Trucking service (421, 423)
411	Warehousing and storage (422)
412-419	U.S. Postal Service (43)
420	Water transportation (44)
421	Air transportation (45)
422-431	Pipe lines, except natural gas (46)
432-439	Services incidental to transportation (47)
440-449	Communications
440	Radio and television broadcasting and cable (483, 484)
441	Telephone communications (481)
442-449	Telegraph and miscellaneous communications services (482, 489)
450-499	Utilities and sanitary services
450	Electric light and power (491)
451	Gas and steam supply systems (492, 496)
452-469	Electric and gas, and other combinations (493)
470	Water supply and irrigation (494, 497)
471	Sanitary services (495)
472-499	Not specified utilities
500-579	<b>WHOLESALE TRADE</b>
500-539	Durable Goods
500	Motor vehicles and equipment (501)
501	Furniture and home furnishings (502)
502-509	Lumber and construction materials (503)
510	Professional and commercial equipment and supplies (504)
511	Metals and minerals, except petroleum (505)
512-520	Electrical goods (506)
521-529	Hardware, plumbing and heating supplies (507)
530	Machinery, equipment, and supplies (508)
531	Scrap and waste materials (5093)
532-539	Miscellaneous wholesale, durable goods (509 except 5093)
540-579	Nondurable Goods
540	Paper and paper products (511)
541	Drugs, chemicals and allied products (512, 516)
542-549	Apparel, fabrics, and notions (513)
550	Groceries and related products (514)

**500-579****WHOLESALE TRADE--Con.**

551	Farm-product raw materials (515)
552-559	Petroleum products (517)
560	Alcoholic beverages (518)
561	Farm supplies (5191)
562-570	Miscellaneous wholesale, nondurable goods (5192-5199)
571-579	Not specified wholesale trade

**580-699****RETAIL TRADE**

580	Lumber and building material retailing (521, 523)
581	Hardware stores (525)
582-589	Retail nurseries and garden stores (526)
590	Mobile home dealers (527)
591	Department stores (531)
592-599	Variety stores (533)
600	Miscellaneous general merchandise stores (539)
601	Grocery stores (541)
602-609	Dairy products stores (545)
610	Retail bakeries (546)
611	Food stores, n.e.c. (542, 543, 544, 549)
612-619	Motor vehicle dealers (551, 552)
620	Auto and home supply stores (553)
621	Gasoline service stations (554)
622	Miscellaneous vehicle dealers (555, 556, 557, 559)
623-629	Apparel and accessory stores, except shoe (56, except 566)
630	Shoe stores (566)
631	Furniture and home furnishings stores (571)
632	Household appliance stores (572)
633-639	Radio, TV, and computer stores (5731, 5734)
640	Music stores (5735, 5736)
641	Eating and drinking places (58)
642-649	Drug stores (591)
650	Liquor stores (592)
651	Sporting goods, bicycles, and hobby stores (5941, 5945, 5946)
652-659	Book and stationery stores (5942, 5943)
660	Jewelry stores (5944)
661	Gift, novelty, and souvenir shops (5947)
662	Sewing, needlework and piece goods stores (5949)
663-669	Catalog and mail order houses (5961)
670	Vending machine operators (5962)
671	Direct selling establishments (5963)
672-680	Fuel dealers (598)
681	Retail florists (5992)
682-690	Miscellaneous retail stores (593, 5948, 5993-5995, 5999)
691-699	Not specified retail trade

**700-720****FINANCE, INSURANCE, AND REAL ESTATE**

700	Banking (60 except 603 and 606)
701	Savings institutions, including credit unions (603, 606)

**700-720****FINANCE, INSURANCE, AND REAL ESTATE--Con.**

- 702-709 Credit agencies, n.e.c. (61)
- 710 Security, commodity brokerage, and investment companies (62, 67)
- 711 Insurance (63, 64)
- 712-720 Real estate, including real estate-insurance offices (65)

**721-760****BUSINESS AND REPAIR SERVICES**

- 721 Advertising (731)
- 722-730 Services to dwellings and other buildings (734)
- 731 Personnel supply services (736)
- 732-739 Computer and data processing services (737)
- 740 Detective and protective services (7381, 7382)
- 741 Business services, n.e.c. (732, 733, 735, 7383-7389)
- 742-749 Automotive rental and leasing, without drivers (751)
- 750 Automotive parking and carwashes (752, 7542)
- 751 Automotive repair and related services (753, 7549)
- 752-759 Electrical repair shops (762, 7694)
- 760 Miscellaneous repair services (763, 764, 7692, 7699)

**761-799****PERSONAL SERVICES**

- 761 Private households (88)
- 762-769 Hotels and motels (701)
- 770 Lodging places, except hotels and motels (702, 703, 704)
- 771 Laundry, cleaning, and garment services (721 except part 7219)
- 772-779 Beauty shops (723)
- 780 Barber shops (724)
- 781 Funeral service and crematories (726)
- 782-789 Shoe repair shops (725)
- 790 Dressmaking shops (part 7219)
- 791-799 Miscellaneous personal services (722, 729)

**800-811****ENTERTAINMENT AND RECREATION SERVICES**

- 800 Theaters and motion pictures (781-783, 792)
- 801 Video tape rental (784)
- 802-809 Bowling centers (793)
- 810-811 Miscellaneous entertainment and recreation services (791, 794, 799)

**812-899****PROFESSIONAL AND RELATED SERVICES**

- 812-819 Offices and clinics of physicians (801, 803)
- 820 Offices and clinics of dentists (802)
- 821 Offices and clinics of chiropractors (8041)
- 822-829 Offices and clinics of optometrists (8042)
- 830 Offices and clinics of health practitioners, n.e.c. (8043, 8049)
- 831 Hospitals (806)
- 832-839 Nursing and personal care facilities (805)
- 840 Health services, n.e.c. (807, 808, 809)
- 841 Legal services (81)

**812-899****PROFESSIONAL AND RELATED SERVICES--Con.**

842-849 Elementary and secondary schools (821)  
850 Colleges and universities (822)  
851 Vocational schools (824)  
852-859 Libraries (823)  
860 Educational services, n.e.c. (829)  
861 Job training and vocational rehabilitation services (833)  
862 Child day care services (part 835)  
863-869 Family child care homes (part 835)  
870 Residential care facilities, without nursing (836)  
871 Social services, n.e.c. (832, 839)  
872 Museums, art galleries, and zoos (84)  
873-879 Labor unions (863)  
880 Religious organizations (866)  
881 Membership organizations, n.e.c. (861, 862, 864, 865, 869)  
882-889 Engineering, architectural, and surveying services (871)  
890 Accounting, auditing, and bookkeeping services (872)  
891 Research, development, and testing services (873)  
892 Management and public relations services (874)  
893-899 Miscellaneous professional and related services (899)

**900-939****PUBLIC ADMINISTRATION**

900 Executive and legislative offices (911-913)  
901-909 General government, n.e.c. (919)  
910-920 Justice, public order, and safety (92)  
921 Public finance, taxation, and monetary policy (93)  
922-929 Administration of human resources programs (94)  
930 Administration of environmental quality and housing programs (95)  
931 Administration of economic programs (96)  
932-939 National security and international affairs (97)

**940-991****ACTIVE DUTY MILITARY**

940-959 Armed Forces  
940 Army  
941 Air Force  
942-949 Navy  
950 Marines  
951 Coast Guard  
952-959 Armed Forces, Branch not specified  
960-991 Military Reserves or National Guard

**992-999****EXPERIENCED UNEMPLOYED NOT CLASSIFIED BY INDUSTRY**

992-999 Unemployed, last worked 1984 or earlier

**LANGUAGE**

This section contains a modified code list of languages other than English spoken at home for the Guam PUMS. Some categories have been grouped. Each entry was given a three-digit code. If more than one language was reported, only the first language reported was coded. The languages were coded originally into nearly 400 different language categories. The following list contains the principal name for each code. Since many languages and language groups are known by several names, additional illustrative names are shown for some languages. A complete list of all reported language names and categories into which they were coded may be obtained from the Census Bureau at the cost of reproduction. The Guam PUMS file contains only the codes listed in bold in the left column.

<b>000</b>	<b>NA (Less than 5 years old/speaks only English)</b>	627	Ladino
		628	Pachuco
<b>601</b>	<b>EUROPEAN (OTHER)</b>	629	Portuguese
		630	Papia Mentae
		631	Rumanian
601	Jamaican Creole	632	Rhaeto-Romanic
602	Krio	632	Romansch
603	Hawaiian Pidgin	633	Welsh
604	Pidgin	634	Breton
605	Gullah	635	Irish Gaelic
606	Saramacca	636	Scottic Gaelic
607	German	637	Greek
607	Austrian	638	Albanian
607	Swiss	639	Russian
608	Pennnsylvania Dutch	640	Bielorussian
609	Yiddish	641	Ukrainian
610	Dutch	642	Czech
610	Flemish	643	Kashubian
611	Afrikaans	644	Lusatian
612	Frisian	644	Sorbian
613	Luxembourgian	644	Wendish
614	Swedish	645	Polish
615	Danish	646	Slovak
616	Norwegian	647	Bulgarian
617	Icelandic	648	Macedonian
618	Faroese	649	Serbocroatian
619	Italian	649	Slavic
620	French	649	Yugoslav
620	Walloon	650	Croatian
621	Provençal	651	Serbian
622	Patois	652	Slovene
623	French Creole	653	Lithuanian
623	Haitian Creole	654	Lettish
624	Cajun	655	Armenian
626	Catalonian	<b>625</b>	<b>SPANISH</b>

656	ASIAN (OTHER)	688	Karachay
		688	Tatar
656	Persian	689	Uighur
656	Farsi	689	Uzbek
656	Pushto		
657	Pashto	690	Azerbaijani
657	Afghan	691	Turkish
		692	Turkmen
658	Kurdish	693	Yakut
659	Balochi	694	Monogolian
660	Tadzhik	695	Tungus
661	Ossete		
662	Sanskrit	696	Caucasian
		696	Avar
663	Hindi and Related	696	Georgian
663	Hindi		
663	India	697	Basque
663	Urdu	698	Dravidian
		699	Brahui
664	Bengali	700	Gondi
665	Panjabi	701	Telugu
666	Marathi	702	Kannada
667	Gujarathi	703	Malayalam
668	Bihari	704	Tamil
669	Rajasthani	705	Kurukh
670	Oriya	706	Munda
671	Bhili	707	Burushaski
672	Assamese		
673	Kashmiri	715	Wu
674	Nepali	716	Tibetan
675	Sindhi		
676	Maldivian	717	Burmese
677	Sinhalese	717	Tonkin
678	Romany		
679	Finnish	718	Karen
680	Estonian	719	Kachin
681	Lapp		
682	Hungarian	720	Thai
		720	Kam
683	Other Uralic Languages	720	Lao
683	Cheremis	720	Laotian
683	Mordvin	720	Tung
683	Samoyed		
683	Ugric	721	Miao-Yao
683	Yenisei		
		722	Miao
684	Chuvash	722	Hmong
685	Karakalpak		
686	Kazakh	725	Ainu
687	Kirghiz		

726	Mon-Khmer	728	VIETNAMESE
726	Cambodian		
726	Khmer	742	FILIPINO
726	Mon		
727	Siberian Languages, not elsewhere classified	742	Tagalog
729	Muong	743	Bisayan
730	Buginese	743	Ilongo
731	Moluccan	744	Sebuano
732	Indonesian	745	Pangasinan
733	Achinese	746	Ilocano
734	Balinese	746	Igorot
735	Cham	747	Bikol
736	Javanese	748	Pampangan
737	Madurese	749	Gorontalo
738	Malagasy		
739	Malay	750	MICRONESIAN--(OTHER)
740	Minangkabau		
741	Sundanese	750	Micronesian
708	<b>CHINESE</b>	751	Carolinian
708	Cantonese	753	Gilbertese
708	Yuch	754	Kusaiean
708	Min	755	Marshallese
709	Hakka	756	Mokilese
709	Fukien	757	Mortlockese
709	K'echia	758	Nauruan
710	Kan	762	Ulithian
710	Nan Chang	763	Woleai-Ulithi
711	Hsiang	763	Eauripik
711	Hunan	763	Ifaluk
712	Mandarin	765	Indo-Pacific Languages, not elsewhere classified
712	Honan	765	Melanesian
712	Hopei	766	Polynesian
712	Pei	768	Tongan
713	Fuchow	769	Niuean
713	Min Pei	770	Tokelauan
714	Formosan	771	Fijian
714	Min Nan	772	Marquesan
723	<b>JAPANESE</b>	773	Rarotongan
724	<b>KOREAN</b>	774	Maori
		775	Nukuoro
		752	<b>CHAMORRO</b>
		759	<b>PALAU</b>

760	PONAPEAN	789	Songhai
761	TRUKESE	790	Khoisan
764	YAPFSE	790	Bushman
767	SAMOAN	791	Swahili
776	HAWAIIAN	792	Bantu
800	ALL OTHER LANGUAGES	792	Bembe
777	Arabic	792	Botswana
778	Hebrew	792	Chaga
779	Syriac	792	Fan
779	Aramaic	792	Kikuyu
779	Assyrian	792	Kongo
779	Chaldean	792	Luganda
780	Amharic	792	Nacbele
780	Tigre	792	Xhosa
781	Berber	792	Zulu
782	Chadic	793	Mande
782	Hamitic	793	Kpelle
782	Hausa	793	Mandingo
783	Cushite	794	Fulani
783	Beja	795	Gur
783	Somali	795	Dagomba
784	Sundanic	796	Kru
784	Dinka	796	Damomeen
784	Gambai	796	Egbo
784	Sudanese	796	Ibo
785	Nilotic	796	Nigerian
785	Acholi	796	Yoruba
785	Luo	797	Efik
785	Nuer	797	Ibibio
786	Nilo-Hamitic	798	Mbum and Related
786	Bari	799	African, not further specified
786	Masai	800	Aleut
787	Nubian	801	Pacific Gulf Yupik
788	Saharan	801	Pacific Eskimo
789	Nilo-Saharan	802	Eskimo
789	Fur	803	Inupik
		803	Inuit
		804	Saint Lawrence Island Yupik
		805	Yupik

806	Algonquian	836	Coeur D'Alene
807	Arapaho	836	Skitsamish
808	Atsina	837	Columbia
808	Gros Ventre	837	Chelan
		837	Wenatchee
809	Blackfoot	838	Cowlitz
810	Cheyenne	839	Salish
811	Cree	839	Flathead
812	Delaware	840	Nootsack
812	Lenni-Lenape	841	Okanogan
813	Fox	842	Puget Sound Salish
813	Sac	842	Duwamish
814	Kickapoo	842	Nisqualli
815	Menomini	842	Puyallup
816	French Cree	842	Skagit
816	Metis	842	Snohomish
817	Miami	842	Suquamish
818	Micmac	843	Quinault
819	Ojibwa	843	Queets
819	Chippewa	844	Tilamook
820	Ottawa	845	Twana
821	Passamaquoddy	846	Haida
821	Malecite	847	Athapascan
822	Penobscot	848	Ahtena
823	Abnaki	849	Han
824	Potowatomi	850	Ingalit
825	Shawnee	851	Koyukon
826	Wiyot	852	Kuchin
827	Yurok	853	Upper Kuskikwim
828	Kutenai	854	Tanaina
829	Makah	855	Tanana
		855	Minto
830	Kwakiutl	856	Tanacross
830	Quileute	857	Upper Tanana
831-832	Nootka	857	Nabesna
833	Lower Chehalis	857	Tetlin
834	Upper Chehalis	858	Tutchone
834	Chehalis	859	Chasta Costa
834	Satsop	859	Chetco
835	Clallam		

859	Coquille	879	Siuslaw
859	Smith River Athapascan	879	Coos
		879	Lower Umpqua
860	Hupa		
861	Other Athapascan-Eyak Languages	880	Klamath
861	Cahto	880	Modoc
861	Mattole		
861	Wailaki	881	Nez Perce
862	Apache	882	Sahaptian
863	Kiowa	882	Celilo
864	Navaho	882	Klikitat
865	Eyak	882	Palouse
		882	Tenino
		882	Umatilla
866	Tlingit	882	Warm Springs
866	Chilkat	882	Yakima
866	Sitka		
866	Tongass	883	Upper Chinook
866	Yakutat	883	Chinook
		883	Clackamas
867	Mountain Maidu	883	Multnomah
867	Maidu	883	Wasco
		883	Wishram
868	Northwest Maidu		
868	Concow	884	Tsimshian
869	Southern Maidu	885	Achumawi
869	Nisenan	886	Atsugewi
		887	Karok
870	Coast Miwok	888	Pomo
870	Bodega	889	Shastan
870	Marin	890	Washo
		891	Up River Yuman
871	Plains Miwok	892	Cocomaricopa
		893	Mohave
872	Sierra Miwok	894	Yuma
872	Miwok	895	Diegueno
		896	Delta River Yuman
873	Nomlaki	897	Upland Yuman
873	Tehama	898	Havasupai
		899	Walapai
874	Patwin	900	Yavapai
874	Colouse	901	Chumash
874	Suisun	902	Tonkawa
		903	Yuchi
875	Wintun		
876	Foothill North Yokuts	904	Crow
877	Tachi	904	Absaroke
878	Santiam	905	Hidatsa
878	Calapooya	906	Mandan
878	Wapatu		

907	Dakota	936	Pawnee
907	Brule	937	Wichita
907	Lakota	938	Comanche
907	Oglala		
907	Sioux	939	Mono
		939	Owens Valley Paiute
908	Chiwere		
909	Winnebago	940	Paiute
910	Kansa	941	Northern Paiute
910	Kaw	941	Bannock
		941	Num
911	Omaha	941	Snake
912	Osage		
913	Ponca	942	Southern Paiute
		943	Chemehuevi
914	Quapaw	944	Kawaiisu
914	Arkansas	945	Ute
		946	Shoshoni
915	Alabama	947	Panamint
		948	Hopi
916	Choctaw	949	Cahuilla
916	Chickasaw	950	Cupeno
		951	Luiseno
917	Mikasuki	952	Serrano
		953	Tubatulabal
918	Hichita		
918	Apalachicola	954	Pima
		954	Papago
919	Koasati		
		955	Yaqui
920	Muskogee		
920	Creek	956	Aztecan
920	Seminole	956	Mexicano
921	Chetemacha	956	Nahua
922	Yuki		
923	Wappo	957-958	Sonoran, not elsewhere classified
924	Keres	957	Cahita
925	Iroquois	957	Guasave
926	Mohawk	957	Huichole
927	Oneida	957	Nayit
928	Onondaga	957-958	Tarahumara
929	Cayuga		
930	Seneca	959	Picuris
931	Tuscarora	959	Northern Tiwa
		959	Taos
932	Wyandot		
932	Huron	960	Tiwa
		960	Isleta
933	Cherokee	960	Ysleta
934	Arikara		
935	Caddo	961	Sandia

962 Tewa  
 962 Hano  
 962 Hopi-Tewa  
 962 San Ildefonso  
 962 San Juan  
 962 Santa Clara  
  
 963 Towa  
 964 Zuni  
 965 Chinook Jargon  
 966 American Indian  
  
 967 Misumalpan  
 967 Matagalpa  
 967 Miskito  
 967 Sumu  
  
 968 Mayan Languages  
 968 Cakchiquel  
 968 Chol  
 968 Guastec  
 968 Guatemala  
 968 Ixil  
 968 Kechi  
 968 Mam  
 968 Maya  
 968 Quechc  
 968 Yucateca  
  
 969 Tarascan  
  
 970 Mapuche  
 970 Araucanian  
 970 Chilote  
  
 971 Oto-Manguen  
 971 Ixatec  
 971 Mixtec  
 971 Otomi  
 971 Popoloc  
 971 Zapoteca  
  
 972 Quechua  
 973 Aymara  
  
 974 Arawakian  
 974 Araua  
 974 Carib  
 974 Guajiro  
 974 Kitemoca  
 974 Tatu

975 Chibchan  
 975 Boruca  
 975 Cuna  
 975 Guaymi  
 975 Ica  
  
 976 Tupi-Guarani  
 976 Guajibo  
 976 Guarani  
 976 Siriono  
  
 977 Jicarilla  
 977 Lipan  
  
 978 Chiricahua  
 978 Mescalero  
  
 979 San Carlos  
 979 Cibecue  
 979 San Carlos  
 979 San Carlos Apache  
 979 White Mountain  
  
 980 Kiowa-Apache  
 981 Kalispel  
 982 Spokane  
  
**983-998 LANGUAGE SPECIFIED, NOT LISTED**  
  
**999 NOT REPORTED**

## OCCUPATION

The list presents the occupational classification developed for the 1990 Census of Population and Housing. There are 501 categories for the employed, 1 additional category for the "experienced unemployed who last worked 1985 or earlier," and 3 additional categories for those members of the Armed Forces who reported an uniquely military occupation. These categories are aggregated into 6 summary and 13 major groups. The classification is developed from the 1980 Standard Occupational Classification (SOC). The numbers in parentheses after the occupation title are the SOC code(s). "n.e.c." is the abbreviation for not elsewhere classified.

### 000-202 MANAGERIAL AND PROFESSIONAL SPECIALTY OCCUPATIONS

#### 000-042 Executive, Administrative, and Managerial Occupations

- 000-003 Legislators (111)
- 004 Chief executives and general administrators, public administration (112)
- 005 Administrators and officials, public administration (1132-1139)
- 006 Administrators, protective services (1131)
- 007 Financial managers (122)
- 008 Personnel and labor relations managers (123)
- 009-012 Purchasing managers (124)
- 013 Managers, marketing, advertising, and public relations (125)
- 014 Administrators, education and related fields (128)
- 015 Managers, medicine and health (131)
- 016 Postmasters and mail superintendents (1344)
- 017 Managers, food serving and lodging establishments (1351)
- 018 Managers, properties and real estate (1353)
- 019-020 Funeral directors (part 1359)
- 021 Managers, service organizations, n.e.c. (127, 1352, 1354, part 1359)
- 022 Managers and administrators, n.e.c. (121, 126, 132-1343, 136-139)

#### 023-042 Management Related Occupations

- 023 Accountants and auditors (1412)
- 024 Underwriters (1414)
- 025 Other financial officers (1415, 1419)
- 026 Management analysts (142)
- 027 Personnel, training, and labor relations specialists (143)
- 028 Purchasing agents and buyers, farm products (1443)
- 029-032 Buyers, wholesale and retail trade except farm products (1442)
- 033 Purchasing agents and buyers, n.e.c. (1449)
- 034 Business and promotion agents (145)
- 035 Construction inspectors (1472)
- 036 Inspectors and compliance officers, except construction (1473)
- 037-042 Management related occupations, n.e.c. (149)

#### 043-202 Professional Specialty Occupations

##### 043-063 Engineers, Architects, and Surveyors

- 043 Architects (161)
- 044-062 Engineers
- 044 Aerospace (1622)
- 045 Metallurgical and materials (1623)
- 046 Mining (1624)

**000-202 MANAGERIAL AND PROFESSIONAL SPECIALTY OCCUPATIONS--Con.**

- 047 Petroleum (1625)
- 048 Chemical (1626)
- 049-052 Nuclear (1627)
- 053 Civil (1628)
- 054 Agricultural (1632)
- 055 Electrical and electronic (1633, 1636)
- 056 Industrial (1634)
- 057 Mechanical (1635)
- 058 Marine and naval architects (1637)
- 059-062 Engineers, n.e.c. (1639)
- 063 Surveyors and mapping scientists (164)
  
- 064-068 **Mathematical and Computer Scientists**
- 064 Computer systems analysts and scientists (171)
- 065 Operations and systems researchers and analysts (172)
- 066 Actuaries (1732)
- 067 Statisticians (1733)
- 068 Mathematical scientists, n.e.c. (1739)
  
- 069-083 **Natural Scientists**
- 069-072 Physicists and astronomers (1842, 1843)
- 073 Chemists, except biochemists (1845)
- 074 Atmospheric and space scientists (1846)
- 075 Geologists and geodesists (1847)
- 076 Physical scientists, n.e.c. (1849)
- 077 Agricultural and food scientists (1853)
- 078 Biological and life scientists (1854)
- 079-082 Forestry and conservation scientists (1852)
- 083 Medical scientists (1855)
  
- 084-094 **Health Diagnosing Occupations**
- 084 Physicians (261)
- 085 Dentists (262)
- 086 Veterinarians (27)
- 087 Optometrists (281)
- 088 Podiatrists (283)
- 089-094 Health diagnosing practitioners, n.e.c. (289)
  
- 095-112 **Health Assessment and Treating Occupations**
- 095 Registered nurses (29)
- 096 Pharmacists (301)
- 097 Dietitians (302)
- 098-105 **Therapists**
- 098 Respiratory therapists (3031)
- 099-102 Occupational therapists (3032)
- 103 Physical therapists (3033)
- 104 Speech therapists (3034)
- 105 Therapists, n.e.c. (3039)
- 106-112 Physicians' assistants (304)

000-202 MANAGERIAL AND PROFESSIONAL SPECIALTY OCCUPATIONS--Con.

- 113-154 Teachers, Postsecondary
  - 113 Earth, environmental, and marine science teachers (2212)
  - 114 Biological science teachers (2213)
  - 115 Chemistry teachers (2214)
  - 116 Physics teachers (2215)
  - 117 Natural science teachers, n.e.c. (2216)
  - 118 Psychology teachers (2217)
  - 119-122 Economics teachers (2218)
  - 123 History teachers (2222)
  - 124 Political science teachers (2223)
  - 125 Sociology teachers (2224)
  - 126 Social science teachers, n.e.c. (2225)
  - 127 Engineering teachers (2226)
  - 128 Mathematical science teachers (2227)
  - 133 Medical science teachers (2231)
  - 134 Health specialties teachers (2232)
  - 135 Business, commerce, and marketing teachers (2233)
  - 136 Agriculture and forestry teachers (2234)
  - 137 Art, drama, and music teachers (2235)
  - 138 Physical education teachers (2236)
  - 139-142 Education teachers (2237)
  - 143 English teachers (2238)
  - 144 Foreign language teachers (2242)
  - 145 Law teachers (2243)
  - 146 Social work teachers (2244)
  - 147 Theology teachers (2245)
  - 148 Trade and industrial teachers (2246)
  - 149-152 Home economics teachers (2247)
  - 153 Teachers, postsecondary, n.e.c. (2249)
  - 154 Postsecondary teachers, subject not specified
  
- 155-162 Teachers, Except Postsecondary
  - 155 Teachers, prekindergarten and kindergarten (231)
  - 156 Teachers, elementary school (232)
  - 157 Teachers, secondary school (233)
  - 158 Teachers, special education (235)
  - 159-162 Teachers, n.e.c. (236, 239)
  
- 163 Counselors, Educational and Vocational (24)
  
- 164-165 Librarians, Archivists, and Curators
  - 164 Librarians (251)
  - 165 Archivists and curators (252)
  
- 166-173 Social Scientists and Urban Planners
  - 166 Economists (1912)
  - 167 Psychologists (1915)
  - 168 Sociologists (1916)
  - 169-172 Social scientists, n.e.c. (1913, 1914, 1919)
  - 173 Urban planners (192)

**000-202 MANAGERIAL AND PROFESSIONAL SPECIALTY OCCUPATIONS--Con.**

- 174-177 Social, Recreation, and Religious Workers
  - 174 Social workers (2032)
  - 175 Recreation workers (2033)
  - 176 Clergy (2042)
  - 177 Religious workers, n.e.c. (2049)
  
- 178-182 Lawyers and Judges
  - 178 Lawyers (211)
  - 179-182 Judges (212)
  
- 183-202 Writers, Artists, Entertainers, and Athletes
  - 183 Authors (321)
  - 184 Technical writers (398)
  - 185 Designers (322)
  - 186 Musicians and composers (323)
  - 187 Actors and directors (324)
  - 188 Painters, sculptors, craft-artists, and artist printmakers (325)
  - 189-192 Photographers (326)
  - 193 Dancers (327)
  - 194 Artists, performers, and related workers, n.e.c. (328, 329)
  - 195-196 Editors and reporters (331)
  - 197 Public relations specialists (332)
  - 198 Announcers (333)
  - 199-202 Athletes (34)

**203-402 TECHNICAL, SALES, AND ADMINISTRATIVE SUPPORT OCCUPATIONS**

- 203-242 Technicians and Related Support Occupations
  - 203-212 Health Technologists and Technicians
    - 203 Clinical laboratory technologists and technicians (362)
    - 204 Dental hygienists (363)
    - 205 Health record technologists and technicians (364)
    - 206 Radiologic technicians (365)
    - 207 Licensed practical nurses (366)
    - 208-212 Health technologists and technicians, n.e.c. (369)
  
  - 213-242 Technologists and Technicians, Except Health
    - 213-222 Engineering and Related Technologists and Technicians
      - 213 Electrical and electronic technicians (3711)
      - 215 Mechanical engineering technicians (3713)
      - 216 Engineering technicians, n.e.c. (3712, 3719)
      - 217 Drafting occupations (372)
      - 218-222 Surveying and mapping technicians (373)
  
  - 223-225 Science Technicians
    - 223 Biological technicians (382)
    - 224 Chemical technicians (3831)
    - 225 Science technicians, n.e.c. (3832, 3833, 384, 389)

**203-402 TECHNICAL, SALES, AND ADMINISTRATIVE SUPPORT OCCUPATIONS--Con.**

- 226-242 Technicians, Except Health, Engineering, and Science
  - 226 Airplane pilots and navigators (825)
  - 227 Air traffic controllers (392)
  - 228 Broadcast equipment operators (393)
  - 229-232 Computer programmers (3971, 3972)
  - 233 Tool programmers, numerical control (3974)
  - 234 Legal assistants (396)
  - 235-242 Technicians, n.e.c. (399)
  
- 243-302 Sales Occupations
  - 243-252 Supervisors and Proprietors, Sales Occupations (40)
  - 253-257 Sales Representatives, Finance and Business Services
    - 253 Insurance sales occupations (4122)
    - 254 Real estate sales occupations (4123)
    - 255 Securities and financial services sales occupations (4124)
    - 256 Advertising and related sales occupations (4153)
    - 257 Sales occupations, other business services (4152)
  
  - 258-262 Sales Representatives, Commodities, Except Retail
  - 259-262 Sales representatives, mining, manufacturing, and wholesale (421, 423, 424)
  
  - 263-282 Sales Workers, Retail and Personal Services
    - 263 Sales workers, motor vehicles and boats (4342, 4344)
    - 264 Sales workers, apparel (4346)
    - 265 Sales workers, shoes (4351)
    - 266 Sales workers, furniture and home furnishings (4348)
    - 267 Sales workers, radio, TV, hi-fi, and appliances (4343, 4352)
    - 268 Sales workers, hardware and building supplies (4353)
    - 269-273 Sales workers, parts (4367)
    - 274 Sales workers, other commodities (4345, 4347, 4354, 4356, 4359, 4362, 4369)
    - 275 Sales counter clerks (4363)
    - 276 Cashiers (4364)
    - 277 Street and door-to-door sales workers (4366)
    - 278-282 News vendors (4365)
  
  - 283-302 Sales Related Occupations
    - 283 Demonstrators, promoters and models, sales (445)
    - 284 Auctioneers (447)
    - 285-302 Sales support occupations, n.e.c. (444, 446, 449)
  
- 303-402 Administrative Support Occupations, Including Clerical
  - 303-307 Supervisors, Administrative Support Occupations
    - 303 Supervisors, general office (4511, 4513, 4514, 4516, 4519, 4529)
    - 304 Supervisors, computer equipment operators (4512)
    - 305 Supervisors, financial records processing (4521)
    - 306 Chief communications operators (4523)
    - 307 Supervisors, distribution, scheduling, and adjusting clerks (4522, 4524-4528)

**203-402 TECHNICAL, SALES, AND ADMINISTRATIVE SUPPORT OCCUPATIONS--Con.**

- 308-312 Computer Equipment Operators
  - 308 Computer operators (4612)
  - 309-312 Peripheral equipment operators (4613)
  
- 313-315 Secretaries, Stenographers, and Typists
  - 313 Secretaries (4622)
  - 314 Stenographers (4623)
  - 315 Typists (4624)
  
- 316-324 Information Clerks
  - 316 Interviewers (4642)
  - 317 Hotel clerks (4643)
  - 318 Transportation ticket and reservation agents (4644)
  - 319-322 Receptionists (4645)
  - 323-324 Information clerks, n.e.c. (4649)
  
- 325-336 Records Processing Occupations, Except Financial
  - 325 Classified-ad clerks (4662)
  - 326 Correspondence clerks (4663)
  - 327 Order clerks (4664)
  - 328 Personnel clerks, except payroll and timekeeping (4692)
  - 329-334 Library clerks (4694)
  - 335 File clerks (4696)
  - 336 Records clerks (4699)
  
- 337-344 Financial Records Processing Occupations
  - 337 Bookkeepers, accounting, and auditing clerks (4712)
  - 338 Payroll and timekeeping clerks (4713)
  - 339-342 Billing clerks (4715)
  - 343 Cost and rate clerks (4716)
  - 344 Billing, posting, and calculating machine operators (4718)
  
- 345-347 Duplicating, Mail and Other Office Machine Operators
  - 345 Duplicating machine operators (4722)
  - 346 Mail preparing and paper handling machine operators (4723)
  - 347 Office machine operators, n.e.c. (4729)
  
- 348-353 Communications Equipment Operators
  - 348-352 Telephone operators (4732)
  - 353 Communications equipment operators, n.e.c. (4733, 4739)
  
- 354-358 Mail and Message Distributing Occupations
  - 354 Postal clerks, except mail carriers (4742)
  - 355 Mail carriers, postal service (4743)
  - 356 Mail clerks, except postal service (4744)
  - 357-358 Messengers (4745)
  
- 359-374 Material Recording, Scheduling, and Distributing Clerks
  - 359-362 Dispatchers (4751)
  - 363 Production coordinators (4752)

**203-402 TECHNICAL, SALES, AND ADMINISTRATIVE SUPPORT OCCUPATIONS--Con.**

364 Traffic, shipping, and receiving clerks (4753)  
365 Stock and inventory clerks (4754)  
366 Meter readers (4755)  
368-372 Weighers, measurers, checkers, and samplers (4756, 4757)  
373 Expeditors (4758)  
374 Material recording, scheduling, and distributing clerks, n.e.c. (4759)

375-378 Adjusters and Investigators  
375 Insurance adjusters, examiners, and investigators (4782)  
376 Investigators and adjusters, except insurance (4783)  
377 Eligibility clerks, social welfare (4784)  
378 Bill and account collectors (4786)

379-402 Miscellaneous Administrative Support Occupations  
379-382 General office clerks (463)  
383 Bank tellers (4791)  
384 Proofreaders (4792)  
385 Data-entry keyers (4793)  
386 Statistical clerks (4794)  
387-388 Teachers' aides (4795)  
389-402 Administrative support occupations, n.e.c. (4787, 4799)

**403-472 SERVICE OCCUPATIONS**

403-412 Private Household Occupations  
404 Cooks, private household (504)  
405 Housekeepers and butlers (505)  
406 Child care workers, private household (506)  
407-412 Private household cleaners and servants (502, 503, 507, 509)

413-432 Protective Service Occupations  
413-415 Supervisors, Protective Service Occupations  
413 Supervisors, firefighting and fire prevention occupations (5111)  
414 Supervisors, police and detectives (5112)  
415 Supervisors, guards (5113)  
416-417 Firefighting and Fire Prevention Occupations  
416 Fire inspection and fire prevention occupations (5122)  
417 Firefighting occupations (5123)  
418-424 Police and Detectives  
418-422 Police and detectives, public service (5132)  
423 Sheriffs, bailiffs, and other law enforcement officers (5134)  
424 Correctional institution officers (5133)  
425-432 Guards  
425 Crossing guards (5142)  
426 Guards and police, except public service (5144)  
427-432 Protective service occupations, n.e.c. (5149)

433-472 Service Occupations, Except Protective and Household  
433-444 Food Preparation and Service Occupations  
433 Supervisors, food preparation and service occupations (5211)

**403-472 SERVICE OCCUPATIONS--Con.**

- 434 Bartenders (5212)
- 435 Waiters and waitresses (5213)
- 436-437 Cooks (5214, 5215)
- 438 Food counter, fountain and related occupations (5216)
- 439-442 Kitchen workers, food preparation (5217)
- 443 Waiters'/waitresses' assistants (5218)
- 444 Miscellaneous food preparation occupations (5219)
  
- 445-447 Health Service Occupations
- 445 Dental assistants (5232)
- 446 Health aides, except nursing (5233)
- 447 Nursing aides, orderlies, and attendants (5236)
  
- 448-455 Cleaning and Building Service Occupations, Except Household
- 448 Supervisors, cleaning and building service workers (5241)
- 449-452 Maids and housemen (5242, 5249)
- 453 Janitors and cleaners (5244)
- 454 Elevator operators (5245)
- 455 Pest control occupations (5246)
  
- 456-472 Personal Service Occupations
- 456 Supervisors, personal service occupations (5251)
- 457 Barbers (5252)
- 458 Hairdressers and cosmetologists (5253)
- 459-460 Attendants, amusement and recreation facilities (5254)
- 461 Guides (5255)
- 462 Ushers (5256)
- 463 Public transportation attendants (5257)
- 464 Baggage porters and bellhops (5262)
- 465 Welfare service aides (5263)
- 466 Family child care providers (part 5264)
- 467 Early childhood teacher's assistants (part 5264)
- 468 Child care workers, n.e.c. (part 5264)
- 469-472 Personal service occupations, n.e.c. (5258, 5269)

**473-502 FARMING, FORESTRY, AND FISHING OCCUPATIONS**

- 473-476 Farm Operators and Managers
- 473 Farmers, except horticultural (5512-5514)
- 474 Horticultural specialty farmers (5515)
- 475 Managers, farms, except horticultural (5522-5524)
- 476 Managers, horticultural specialty farms (5525)
  
- 477-493 Other Agricultural and Related Occupations
- 477-484 Farm Occupations, Except Managerial
- 477-478 Supervisors, farm workers (5611)
- 479-482 Farm workers (5612-5617)
- 483 Marine life cultivation workers (5618)
- 484 Nursery workers (5619)

**473-502 FARMING, FORESTRY, AND FISHING OCCUPATIONS--Con.**

- 485-493 Related Agricultural Occupations
- 485 Supervisors, related agricultural occupations (5621)
- 486 Groundskeepers and gardeners, except farm (5622)
- 487 Animal caretakers, except farm (5624)
- 488 Graders and sorters, agricultural products (5625)
- 489-493 Inspectors, agricultural products (5627)
  
- 494-496 Forestry and Logging Occupations
- 494 Supervisors, forestry and logging workers (571)
- 495 Forestry workers, except logging (572)
- 496 Timber cutting and logging occupations (573, 579)
  
- 497-502 Fishers, Hunters, and Trappers
- 497 Captains and other officers, fishing vessels (part 8241)
- 498 Fishers (583)
- 499-502 Hunters and trappers (584)

**503-702 PRECISION PRODUCTION, CRAFT, AND REPAIR OCCUPATIONS**

**503-552 Mechanics and Repairers**

- 503-504 Supervisors, mechanics and repairers (60)
- 505-552 Mechanics and Repairers, Except Supervisors
- 505-517 Vehicle and Mobile Equipment Mechanics and Repairers
- 505-506 Automobile mechanics (part 6111)
- 506 Automobile mechanic apprentices (part 6111)
- 507 Bus, truck, and stationary engine mechanics (6112)
- 508 Aircraft engine mechanics (6113)
- 509-513 Small engine repairers (6114)
- 514 Automobile body and related repairers (6115)
- 515 Aircraft mechanics, except engine (6116)
- 516 Heavy equipment mechanics (6117)
- 517 Farm equipment mechanics (6118)
- 518 Industrial machinery repairers (613)
- 519-522 Machinery maintenance occupations (614)
  
- 523-533 Electrical and Electronic Equipment Repairers
- 523-524 Electronic repairers, communications and industrial equipment (6151, 6153, 6155)
- 525 Data processing equipment repairers (6154)
- 526 Household appliance and power tool repairers (6156)
- 527-528 Telephone line installers and repairers (6157)
- 529-532 Telephone installers and repairers (6158)
- 533 Miscellaneous electrical and electronic equipment repairers (6152, 6159)
  
- 534 Heating, air conditioning, and refrigeration mechanics (616)
- 535-552 Miscellaneous Mechanics and Repairers
- 535 Camera, watch, and musical instrument repairers (6171, 6172)
- 536-537 Locksmiths and safe repairers (6173)
- 538 Office machine repairers (6174)
- 539-542 Mechanical controls and valve repairers (6175)

**503-702 PRECISION PRODUCTION, CRAFT, AND REPAIR OCCUPATIONS--Con.**

- 543 Elevator installers and repairers (6176)
- 544-546 Millwrights (6178)
- 547-548 Specified mechanics and repairers, n.e.c. (6177, 6179)
- 549-552 Not specified mechanics and repairers

553-612 Construction Trades

553-562 Supervisors, Construction Occupations

- 553 Supervisors, brickmasons, stonemasons, and tile setters (6312)
- 554 Supervisors, carpenters and related workers (6313)
- 555 Supervisors, electricians and power transmission installers (6314)
- 556 Supervisors, painters, paperhangers, and plasterers (6315)
- 557 Supervisors, plumbers, pipefitters, and steamfitters (6316)
- 558-562 Supervisors, construction, n.e.c. (6311, 6318)

563-612 Construction Trades, Except Supervisors

- 563-564 Brickmasons and stonemasons (part 6412, part 6413)
- 564 Brickmason and stonemason apprentices (part 6412, part 6413)
- 565 Tile setters, hard and soft (part 6414, part 6462)
- 566 Carpet installers (part 6462)
- 567-572 Carpenters (part 6422)
- 569-572 Carpenter apprentices (part 6422)
- 573-574 Drywall installers (6424)
- 575-576 Electricians (part 6432)
- 576 Electrician apprentices (part 6432)
- 577-578 Electrical power installers and repairers (6433)
- 579-582 Painters, construction and maintenance (6442)
- 583 Paperhangers (6443)
- 584 Plasterers (6444)
- 585-587 Plumbers, pipefitters, and steamfitters (part 645)
- 587 Plumber, pipefitter, and steamfitter apprentices (part 645)
- 588 Concrete and terrazzo finishers (6463)
- 589-592 Glaziers (6464)
- 593 Insulation workers (6465)
- 594 Paving, surfacing, and tamping equipment operators (6466)
- 595 Roofers (6468)
- 596 Sheetmetal duct installers (6472)
- 597 Structural metal workers (6473)
- 598 Drillers, earth (6474)
- 599-612 Construction trades, n.e.c. (6467, 6475, 6476, 6479)

613-627 Extractive Occupations

- 613 Supervisors, extractive occupations (632)
- 614 Drillers, oil well (652)
- 615 Explosives workers (653)
- 616 Mining machine operators (654)
- 617-627 Mining occupations, n.e.c. (656)

628-702 Precision Production Occupations

- 628-633 Supervisors, production occupations (67, 71)

**503-702 PRECISION PRODUCTION, CRAFT, AND REPAIR OCCUPATIONS--Con.**

- 634-655 Precision Metal Working Occupations
- 634-635 Tool and die makers (part 6811)
- 635 Tool and die maker apprentices (part 6811)
- 636 Precision assemblers, metal (6812)
- 637-642 Machinists (part 6813)
- 639-642 Machinist apprentices (part 6813)
- 643 Boilermakers (6814)
- 644 Precision grinders, filers, and tool sharpeners (6816)
- 645 Patternmakers and model makers, metal (6817)
- 646 Lay-out workers (6821)
- 647-648 Precious stones and metals workers (Jewelers) (6822, 6866)
- 649-652 Engravers, metal (6823)
- 653-654 Sheet metal workers (part 6824)
- 654 Sheet metal worker apprentices (part 6824)
- 655 Miscellaneous precision metal workers (6829)
- 656-665 Precision Woodworking Occupations
- 656 Patternmakers and model makers, wood (6831)
- 657 Cabinet makers and bench carpenters (6832)
- 658 Furniture and wood finishers (6835)
- 659-665 Miscellaneous precision woodworkers (6839)
- 666-674 Precision Textile, Apparel, and Furnishings Machine Workers
- 666 Dressmakers (part 6852, part 7752)
- 667 Tailors (part 6852)
- 668 Upholsterers (6853)
- 674 Miscellaneous precision apparel and fabric workers (6854, 6856, 6859, part 7752)
- 675-685 Precision Workers, Assorted Materials
- 675 Hand molders and shapers, except jewelers (6861)
- 676 Patternmakers, lay-out workers, and cutters (6862)
- 677 Optical goods workers (6864, part 7477, part 7677)
- 678 Dental laboratory and medical appliance technicians (6865)
- 679-682 Bookbinders (6844)
- 683 Electrical and electronic equipment assemblers (6867)
- 684-685 Miscellaneous precision workers, n.e.c. (6869)
- 686-688 Precision Food Production Occupations
- 686 Butchers and meat cutters (6871)
- 687 Bakers (6872)
- 688 Food batchmakers (6873, 6879)
- 689-693 Precision Inspectors, Testers, and Related Workers
- 689-692 Inspectors, testers, and graders (6881, 828)
- 693 Adjusters and calibrators (6882)
- 694-702 Plant and System Operators
- 694 Water and sewage treatment plant operators (691)
- 695 Power plant operators (part 693)
- 696-698 Stationary engineers (part 693, 7668)
- 699-702 Miscellaneous plant and system operators (692, 694, 695, 696)

**703-902 OPERATORS, FABRICATORS, AND LABORERS**

703-802 Machine Operators, Assemblers, and Inspectors

703-782 Machine Operators and Tenders, Except Precision

703-716 Metal Working and Plastic Working Machine Operators

703 Lathe and turning machine set-up operators (7312)

704 Lathe and turning machine operators (7512)

705 Milling and planing machine operators (7313, 7513)

706 Punching and stamping press machine operators (7314, 7317, 7514, 7517)

707 Rolling machine operators (7316, 7516)

708 Drilling and boring machine operators (7318, 7518)

709-712 Grinding, abrading, buffing, and polishing machine operators (7322, 7324, 7522)

713 Forging machine operators (7319, 7519)

714 Numerical control machine operators (7326)

715-716 Miscellaneous metal, plastic, stone, and glass working machine operators (7329, 7529)

719-725 Metal and Plastic Processing Machine Operators

719-722 Molding and casting machine operators (7315, 7342, 7515, 7542)

723 Metal plating machine operators (7343, 7543)

724 Heat treating equipment operators (7344, 7544)

725 Miscellaneous metal and plastic processing machine operators (7349, 7549)

726-733 Woodworking Machine Operators

726 Wood lathe, routing, and planing machine operators (7431, 7432, 7631, 7632)

727 Sawing machine operators (7433, 7633)

728 Shaping and joining machine operators (7435, 7635)

729-732 Nailing and tacking machine operators (7636)

733 Miscellaneous woodworking machine operators (7434, 7439, 7634, 7639)

734-737 Printing Machine Operators

734 Printing press operators (7443, 7643)

735 Photoengravers and lithographers (6842, 7444, 7644)

736 Typesetters and compositors (6841, 7642)

737 Miscellaneous printing machine operators (6849, 7449, 7649)

738-752 Textile, Apparel, and Furnishings Machine Operators

738 Winding and twisting machine operators (7451, 7651)

739-742 Knitting, looping, taping, and weaving machine operators (7452, 7652)

743 Textile cutting machine operators (7654)

744 Textile sewing machine operators (7655)

745-746 Shoe machine operators (7656)

747 Pressing machine operators (7657)

748 Laundering and dry cleaning machine operators (6855, 7658)

749-752 Miscellaneous textile machine operators (7459, 7659)

753-782 Machine Operators, Assorted Materials

753 Cementing and gluing machine operators (7661)

754 Packaging and filling machine operators (7462, 7662)

755 Extruding and forming machine operators (7463, 7663)

756 Mixing and blending machine operators (7664)

**703-902 OPERATORS, FABRICATORS, AND LABORERS--Con.**

757 Separating, filtering, and clarifying machine operators (7476, 7666, 7676)  
758 Compressing and compacting machine operators (7467, 7667)  
759-762 Painting and paint spraying machine operators (7669)  
763 Roasting and baking machine operators, food (7472, 7672)  
764 Washing, cleaning, and pickling machine operators (7673)  
765 Folding machine operators (7474, 7674)  
766-767 Furnace, kiln, and oven operators, except food (7675)  
768 Crushing and grinding machine operators (part 7477, part 7677)  
769-772 Slicing and cutting machine operators (7478, 7678)  
773 Motion picture projectionists (part 7479)  
774-776 Photographic process machine operators (6863, 6868, 7671)  
777-778 Miscellaneous machine operators, n.e.c. (part 7479, 7665, 7679)  
779-782 Machine operators, not specified

**783-795 Fabricators, Assemblers, and Hand Working Occupations**

783 Welders and cutters (7332, 7532, 7714)  
784 Solderers and brazers (7333, 7533, 7717)  
785 Assemblers (772, 774)  
786 Hand cutting and trimming occupations (7753)  
789-792 Hand painting, coating, and decorating occupations (7756)  
793-794 Hand engraving and printing occupations (7757)  
795 Miscellaneous hand working occupations (7339, 7539, 7754, 7755, 7758, 7759)  
796-802 Production Inspectors, Testers, Samplers, and Weighers  
796 Production inspectors, checkers, and examiners (782, 787)  
797 Production testers (783)  
798 Production samplers and weighers (784)  
799-802 Graders and sorters, except agricultural (785)

**803-863 Transportation and Material Moving Occupations**

**803-822 Motor Vehicle Operators**

803 Supervisors, motor vehicle operators (8111)  
804-805 Truck drivers (8212-8214)  
806-807 Driver-sales workers (8218)  
808 Bus drivers (8215)  
809-812 Taxicab drivers and chauffeurs (8216)  
813 Parking lot attendants (874)  
814-822 Motor transportation occupations, n.e.c. (8219)

**823-842 Transportation Occupations, Except Motor Vehicles**

823-827 Rail Transportation Occupations  
823 Railroad conductors and yardmasters (8113)  
824 Locomotive operating occupations (8232)  
825 Railroad brake, signal, and switch operators (8233)  
826-827 Rail vehicle operators, n.e.c. (8239)  
828-842 Water Transportation Occupations  
828 Ship captains and mates, except fishing boats (part 8241, 8242)  
829-832 Sailors and deckhands (8243)  
833 Marine engineers (8244)  
834-842 Bridge, lock, and lighthouse tenders (8245)

**703-902 OPERATORS, FABRICATORS, AND LABORERS--Con.**

843-863 Material Moving Equipment Operators  
843 Supervisors, material moving equipment operators (812)  
844 Operating engineers (8312)  
845-847 Longshore equipment operators (8313)  
848 Hoist and winch operators (8314)  
849-852 Crane and tower operators (8315)  
853-854 Excavating and loading machine operators (8316)  
855 Grader, dozer, and scraper operators (8317)  
856-858 Industrial truck and tractor equipment operators (8318)  
859-863 Miscellaneous material moving equipment operators (8319)

**864-902 Handlers, Equipment Cleaners, Helpers, and Laborers**

864 Supervisors, handlers, equipment cleaners, and laborers, n.e.c. (85)  
865 Helpers, mechanics, and repairers (863)  
866-868 Helpers, Construction, and Extractive Occupations  
866 Helpers, construction trades (8641-8645, 8648)  
867 Helpers, surveyor (8646)  
868 Helpers, extractive occupations (865)  
869-873 Construction laborers (871)  
874 Production helpers (861, 862)  
875-884 Freight, Stock, and Material Handlers  
875 Garbage collectors (8722)  
876 Stevedores (8723)  
877 Stock handlers and baggers (8724)  
878-882 Machine feeders and offbearers (8725)  
883-884 Freight, stock, and material handlers, n.e.c. (8726)  
885-886 Garage and service station related occupations (873)  
887 Vehicle washers and equipment cleaners (875)  
888 Hand packers and packagers (8761)  
889-902 Laborers, except construction (8769)

**903-908 MILITARY OCCUPATIONS (Includes only uniquely military occupations. Other Armed Forces members are coded to civilian occupations.)**

903 Commissioned officers and warrant officers  
904 Non-commissioned officers and other enlisted personnel  
905-908 Military occupation, rank not specified

**909-999 EXPERIENCED UNEMPLOYED NOT CLASSIFIED BY OCCUPATION**

909-999 Unemployed, last worked 1984 or earlier

## STATE AND COUNTRY CODES

The State and Country Codes that appear on the Guam PUMS file are listed in Appendix C, pages C4-C7. The codes appearing for Place of Birth, Father's Place of Birth, Mother's Place of Birth, Migration, and Place-of-Work have been collapsed as shown in each individual list. Use this section for definitions of those collapsed codes only. The Guam PUMS file contains only the codes listed in bold in the left column.

<b>006-007</b>	<b>California</b>	046	South Dakota
		047	Tennessee
<b>015</b>	<b>Hawaii</b>	048	Texas
		049	Utah
<b>057</b>	<b>United States</b>	050	Vermont
		051-052	Virginia
001	Alabama	053	Washington
002-003	Alaska	054	West Virginia
004	Arizona	055	Wisconsin
005	Arkansas	056-057	Wyoming
008	Colorado		
009	Connecticut	<b>060-065</b>	<b>American Samoa</b>
010	Delaware		
011	District of Columbia	<b>066</b>	<b>Guam</b>
012	Florida		
013-014	Georgia	<b>069</b>	<b>Northern Mariana Islands</b>
016	Idaho		
017	Illinois	071	Midway Islands
018	Indiana	073-077	Navassa Island
019	Iowa		
020	Kansas	<b>070</b>	<b>Saipan</b>
021	Kentucky		
022	Louisiana	<b>072</b>	<b>Puerto Rico</b>
023	Maine		
024	Maryland	<b>110</b>	<b>Germany, not specified</b>
025	Massachusetts		
026	Michigan	111	West Germany
027	Minnesota	112	West Berlin
028	Mississippi	113	East Berlin
029	Missouri	114	East Germany
030	Montana		
031	Nebraska	<b>120</b>	<b>Italy</b>
032	Nevada		
033	New Hampshire	<b>134</b>	<b>Spain</b>
034	New Jersey		
035	New Mexico	<b>139</b>	<b>England</b>
036	New York		
037	North Carolina	<b>207</b>	<b>China</b>
038	North Dakota		
039	Ohio	<b>209</b>	<b>Hong Kong</b>
040	Oklahoma		
041	Oregon	<b>210</b>	<b>India</b>
042-043	Pennsylvania		
044	Rhode Island	<b>215</b>	<b>Japan</b>
045	South Carolina		

217	<b>Korea, not specified</b>		728	Langar
			729	Sokehs
	218	South Korea		
	219	North Korea	730	<b>Yap</b>
224	<b>Malaysia</b>		731	Eauripik
			732	Elato
231	<b>Philippines</b>		733	Fais
			734	Faraulep
238	<b>Taiwan</b>		735	Ifalik
			736	Lamotrek
239	<b>Thailand</b>		737	Ngulu
			738	Satawal
242	<b>Vietnam</b>		739	Sorol
			740	Ulithi
301	<b>Canada</b>		741	Woleai
			742	Maap
315	<b>Mexico</b>		743-749	Rumung
554	<b>At Sea</b>		750	<b>Chuuk (Truk)</b>
555	<b>Abroad</b>		751	Dublon
			752	Eten
650	<b>Palau</b>		753	Eot
			754	Ettal
	517	Palau	755	Fala-Beguets
	651	Koror	756	Fananu
	652	Babeldaub	757	Fefan
	653	Augaur	758	Kuttu
	654	Kay Angel	759	Losap
	655	Pelcliu	760	Lukunor
	656	Sonsorol	761	Magur
	657	Merir	762	Moch
	658	Pulo Anna	763	Moen
	659	Tobi	764	Piis
	660	Helen Reef	765	Fono
	661-700	Rock Islands	766	Murillo
			767	Nama
710	<b>Kosrae</b>		768	Namaluk
			769	Nomwin
	711-719	Lclu	770	Onari
			771	Oneop
720	<b>Pohnpei</b>		772	Ono
			773	Param
	721	Kapingamaragi	774	Tarik
	722	Nukuoro	775	Pisaras
	723	Ngatik	776	Mortloks
	724	Mokil	777	Pis-losap
	725	Pingelap	778	Pulap
	726	Oroluk	779	Pulusuk
	727	Ant	780	Puluwat
			781	Romanum



216	Jordan	310-329	Central America
220	Kuwait	310	Belize
221	Laos	311	Costa Rica
222	Lebanon	312	El Salvador
223	Macau	313	Guatemala
225	Maldives	314	Honduras
226	Mongolia	316	Nicaragua
227	Nepal	317	Panama
228	Oman	318-329	Central America, not specified
229	Pakistan		
230	Paracel Islands	330-374	Caribbean
232	Qatar	330	Anguilla
233	Saudi Arabia	331	Antigua and Barbuda
234	Singapore	332	Aruba
235	Spratley Islands	333	Bahamas
236	Sri Lanka	334	Barbados
237	Syria	335	British Virgin Islands
		336	Cayman Islands
240	Turkey	337	Cuba
241	United Arab Emirates	338	Dominica
		339	Dominican Republic
243	Yemen, People's Democratic Republic	340	Grenada
244	Yemen Arab Republic	341	Guadeloupe
		342	Haiti
245	Asia, not specified	343	Jamaica
246	Asia Minor, not specified	344	Martinique
247	East Asia, not specified	345	Montserrat
		346	Netherlands Antilles
		347	St. Barthelemy
248	Gaza Strip	348	St. Kitts-Nevis
249	Indochina, not specified	349	St. Lucia
250	Iraq-Saudi Arabia Neutral Zone	350	St. Vincent and the Grenadines
251	Mesopotamia, not specified	351	Trinidad and Tobago
252	Middle East, not specified	352	Turks and Caicos Islands
253	Palestine, not specified	353	Caribbean, not specified
254	Persian Gulf States, not specified	354	Antilles, not specified
255	Southeast Asia, not specified	355	British West Indies, not specified
		356	Latin America, not specified
256-299	West Bank	357	Leeward Islands, not specified
		358	West Indies, not specified
300-399	America	359-374	Windward Islands, not specified
300-309	North America	375-399	South America
300	Bermuda	375	Argentina
		376	Bolivia
302	Greenland	377	Brazil
303	St. Pierre and Miquelon	378	Chile
304-309	North America, not specified	379	Colombia
		380	Ecuador

381	Falkland Islands	440	Nigeria
382	French Guiana	441	Reunion
383	Guyana	442	Rwanda
384	Paraguay	443	Sao Tome and Principe
385	Peru	444	Senegal
386	Suriname	445	Mauritius
387	Uruguay	446	Seychelles
388	Venezuela	447	Sierra Leone
389-399	South America, not specified	448	Somalia
		449	South Africa
400-499	Africa	450	St. Helena
		451	Sudan
400	Algeria	452	Swaziland
401	Angola	453	Tanzania
402	Bassas da India	454	Togo
403	Benin	455	Tromelin Island
404	Botswana	456	Tunisia
405	British Indian Ocean Territory	457	Uganda
406	Burkina Faso	458	Western Sahara
407	Burundi	459	Zaire
408	Cameroon	460	Zambia
409	Cape Verde	461	Zimbabwe
410	Central African Republic	462	Africa, not specified
411	Chad	463	Central Africa, not specified
412	Comoros	464	Eastern Africa, not specified
413	Congo	465	Equatorial Africa, not specified
414	Djibouti	466	French Equatorial Africa, not specified
415	Egypt		French West Africa, not specified
416	Equatorial Guinea	467	North Africa, not specified
417	Ethiopia	468	Western Africa, not specified
418	Europa Island	469	Southern Africa, not specified
419	Gabon	470-499	
420	Gambia		
421	Ghana	500-553, 601-794	Oceania
422	Glorioso Islands		
423	Guinea	500	Ashmore and Cartier Islands
424	Guinea-Bissau	501	Australia
425	Ivory Coast	502	Christmas Island, Indian Ocean
426	Juan de Nova Island	503	Clipperton Island
427	Kenya	504	Cocos Islands
428	Lesotho	505	Cook Islands
429	Liberia	506	Coral Sea Islands
430	Libya	507	Fiji
431	Madagascar	508	French Polynesia
432	Malawi	509	Kiribati
433	Mali	510	Marshall Islands
434	Mauritania	511	Micronesia
435	Mayotte	512	Nauru
436	Morocco	513	New Caledonia
437	Mozambique	514	New Zealand
438	Namibia	515	Niue
439	Niger	516	Norfolk Island

518	Papua New Guinea	611	Erikub
519	Pitcairn Islands	612	Jabat
520	Solomon Islands	613	Jaluit
521	Tokelau	614	Jemo
522	Tonga	615	Kili
523	Tuvalu	616	Kwajalein
524	Vanuatu	617	Lae
525	Wallis and Futuna Islands	618	Lib
526	Western Samoa	619	Likiep
527	Oceania, not specified	620	Majuro
528	Polynesia, not specified	621	Maloelap
529-549	Melanesia, not specified	622	Mejit
550	Antarctica	623	Mili
551	Bouvet Island	624	Namorik
552	French Southern and Antarctic Lands	625	Namu
553	Heard and McDonald Islands	626	Rongelap
601	Marshall Islands	627	Rongrik
602	Ailinginae	628	Taka
603	Ailinglaplap	629	Taongi
604	Ailuk	630	Ujae
605	Arno	631	Ujelang
606	Aur	632	Utrik
607	Bikar	633	Wotho
608	Bikini	634-649	Wotje
609	Ebon	701-709	Federated States of Micronesia
610	Enewetak		