
VOLUME I CHARACTERISTICS OF THE POPULATION

PART 40 SECTION 1 Pennsylvania

This report is one of the 58 numbered parts of Population Census Volume I. Each of these parts contains four chapters, A, B, C, and D, originally published in the PC(1)-A, B, C, and D series of individual reports (except parts 54-58 which contain only chapters A and B). As indicated in the listing below there is one numbered part for the United States, each State, the District of Columbia, Puerto Rico, Guam, Virgin Islands, American Samoa, Canal Zone, and Trust Territory of the Pacific Islands. The starting page numbers for chapters A, B, C, and D are given below; the first page of each chapter presents a list of contents. The present publication includes changes for typographical errors found in some maps and tables after issuance of the series of individual reports, but the tables have not been revised to reflect the corrections listed on pages 6 and 296 for this State.

CHAPTERS

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Chapter D, Detailed Characteristics, and appendixes A-D for this volume appear in section 2.

PARTS OF VOLUME I

(Parts 1-53 are bound separately; parts 54-58 are bound together in one book. Volume I also includes Part A, entitled "Number of Inhabitants," which consists of each chapter A in the 58 parts listed below assembled together in one report.)

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GENERAL

This report represents a major portion of the information compiled for this State from the 1970 Census of Population. Statistics are presented in varying amounts of detail for the State (by urban and rural residence), its counties or comparable areas, incorporated and unincorporated places, and certain other areas of the State. Legal provision for this census, which was conducted as of April 1, 1970, was made in the Act of Congress of August 31, 1954 (amended August 1957), which codified Title 13, United States Code.

Volume I, of which this report is part, consists of a set of bound books identified as parts. The parts are numbered 1 for the United States, 2 through 52 for the 50 States and the District of Columbia in alphabetical order, 53 for Puerto Rico, and 54 through 58 (which appear together in one book) for Guam, Virgin Islands, American Samoa, Canal Zone, and the Trust Territory of the Pacific Islands, respectively. Each part contains four chapters, A, B, C, and D, which were previously published as individual paperbound reports in the PC(1)-A, PC(1)-B, PC(1)-C, and PC(1)-D Population Census series.

Chapter A presents statistics on the number of inhabitants; chapter B, basic demographic characteristics; chapter C, general social and economic characteristics; and chapter D, detailed characteristics. (For the outlying areas other than Puerto Rico, all the data on characteristics of the population will be included in chapter B.) For a description of the entire data dissemination program of the 1970 Population and Housing Census, see Appendix D, "Publication and Computer Summary Tape Program."

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

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

Organization of the text.—The text consists of this introduction and four appendixes which appear after the tables. Appendix A describes the various area classifications (e.g., urban and rural residence, counties, urbanized areas, etc.) and also explains the residence rules used in counting the population. Appendix B provides definitions and explanations for the subjects covered in this report, including excerpts from the census question-

naires and instruction sheets. Appendix C presents information on sources of error in the data, sampling variability, ratio estimation, editing procedures, and information on allocation tables. Appendix D summarizes the data dissemination program of the 1970 census.

Content of the tables.—Tables 1 to 15 (chapter A) contain statistics on the number of inhabitants of the State and its counties or comparable areas, classified by urban and rural residence and by size of place; and the number of inhabitants of county subdivisions, incorporated and unincorporated places, urbanized areas, standard metropolitan statistical areas, and certain other areas of the State. Tables 16 to 39 (chapter B) present statistics on basic demographic characteristics, and tables 40 to 137 (chapter C) present statistics on general social and economic characteristics for most of the above-mentioned areas. Tables 138 to 216 (chapter D) contain detailed categories and cross-classifications (generally by age) for the State by urban, rural nonfarm, and rural farm residence, and for the larger cities and standard metropolitan statistical areas.

Sample size.—The statistics for 1970 presented in chapters A and B of this report are based on 100-percent data, whereas those presented in chapters C and D are based on a sample inflated to represent the total population. The sample data were obtained from the 15-percent and 5-percent sample questionnaires (see "Data Collection Procedures," below). Some items appeared on both sample questionnaires and, therefore, are based on a 20-percent sample of the population. Figures for a characteristic (e.g., the population 5 years old and over) may differ be-

tween tables when the figures are derived from different samples. When a statistic is available on both a 100-percent basis and a sample basis, preference should be given to the figure based on 100-percent data. (See Appendix C, "Accuracy of the Data," for information on the sampling variability associated with the data and for the sample rates for statistics presented in chapters C and D.) The statistics for 1960 shown in chapters C and D are based on a 25-percent sample of the population.

Comparability of data in different chapters.—The figures in this report are basically comparable from one chapter to another. However, small differences may occur because of sampling variability and processing differences.

Derived figures (percents, medians, etc.).—Percents, medians, and means, as well as certain rates and ratios are shown in these reports. For all types of derived figures in this report, the figure is not presented (but indicated by three dots "...") if the base is smaller than the minimum number prescribed for the sample on which the figure is based. The minimum bases are 5 (persons, families, or households) for 100-percent data, 100 for the 20-percent sample, 132 for the 15-percent sample, and 400 for the 5-percent sample.¹ When a cross-tabulation of two or more characteristics covers subjects based on different samples, the minimum base for the smaller sample applies. An exception occurs in chapter C in tables that show data for persons of Spanish

¹ For a number of States, minimum bases of 25 for the 20-percent sample, 33 for the 15-percent sample, and 100 for the 5-percent sample apply to some of the tables in chapter C.

language, persons of Spanish language or surname, or persons of Puerto Rican birth or parentage. Although all data for these population groups are based on the 15-percent sample, the minimum base in these tables is determined by the sample rate of each characteristic shown in the table. (The sample rate of each subject in chapters C and D is shown in tables B and C of Appendix C, "Accuracy of the Data.")

Percents which round to less than 0.1 are not shown but indicated as zero (i.e., "--"). The median, which is a type of average, is the middle value in a distribution; i.e., the median divides the distribution into two equal parts—one-half of the cases fall below the median and one-half of the cases exceed the median. The mean is the arithmetic average derived by adding the values in a particular distribution and dividing by the number of units in the distribution. The method of tabulating and presenting the various means and medians shown in these tables is fully discussed in Appendix B under the specific subject categories.

The reader should exercise caution in the use and interpretation of data for very small areas or subgroups of the population; these data are especially subject to the effects of sampling variability, misreporting, and processing errors.

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

Boundaries.—The data shown for 1970 relate to boundaries as they existed on

January 1, 1970. Information on boundary changes between 1960 and 1970 for certain types of areas is given in table 10. Unless otherwise indicated, the data shown for 1960 and previous years relate to the areas as defined at the time of the particular census.

DATA COLLECTION PROCEDURES

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

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

In the larger metropolitan areas and some adjacent counties, altogether containing about three-fifths of the population of the United States, the householder was requested to fill out and mail back the form on Census Day. Approximately 87 percent of the householders returned their forms by mail. The mailed-back forms were reviewed by the census enumerator (or, in some localities, a census clerk) and if the form was determined to be incomplete or inconsistent, a followup was made. The bulk of these followups were made by telephone, the rest by personal visit. For the households

which did not mail back their forms, a followup was also made, in almost all cases by personal visit and in the remainder by telephone.

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

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

In the metropolitan and adjacent areas, the designated type was sent to each household. In the remaining areas, the questionnaire with a limited number of questions was distributed to all households, and the enumerators asked the additional questions in those households designated for the 15-percent and 5-percent samples.

PROCESSING PROCEDURES

The 1970 census questionnaires were specially designed to be processed by FOSDIC (Film Optical Sensing Device for Input to Computer). For most items on the questionnaire, the information supplied by the respondent or obtained by the enumerator was indicated by marking the answers in predesignated positions that would be "read" by FOSDIC from a microfilm copy of the questionnaire onto computer magnetic tape with no intervening manual processing. All the items presented in chapter B were of this nature. Among the items covered in chapters C and D, however, a

number required reviewing written entries to determine the proper code. Consequently, the processing involved a manual coding and editing operation in which clerks determined the appropriate codes and marked the specified positions on the questionnaire; for example, the clerks applied a 2-digit numerical code for the State-of-birth entry. These marks as well as those made by the respondent and enumerator were read by FOSDIC onto magnetic tape.

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