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1970 CENSUS OF HOUSING

volume I	HOUSING CHARACTERISTICS FOR STATES, CITIES, AND COUNTIES
part 24	Michigan

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VOLUME I HOUSING CHARACTERISTICS FOR STATES, CITIES, AND COUNTIES

PART 24 Michigan

This report is one of the 58 parts which constitute Housing Census Volume I. Each part contains two chapters, A and B, originally published in the HC(1)-A and HC(1)-B series of individual reports. 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 and B 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 120 for this State.

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GENERAL

This report presents statistics from the 1970 Census of Housing on characteristics of housing units for the State, 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.

This volume consists of 54 bound books identified as parts. Each part contains two chapters, A and B, previously published as paperbound reports in the HC(1)-A and HC(1)-B Housing Census Series. The parts are number 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.

Chapter A presents general housing characteristics based on data collected on a 100-percent basis. Chapter B presents detailed characteristics based on a sample. 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 most of 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; further information on comparability appears in Appendix B, "Definitions and Explanations of Subject Characteristics."

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 briefly explains the residence rules used in counting the population. Appendix B provides definitions and explanations for the subjects covered in this report, including facsimiles of the 1970 census questionnaire pages and a facsimile of the instruction sheet. Appendix C presents information on sources of error in the data, editing procedures, allocation tables, the sample design, ratio estimation, and sampling variability. Appendix D summarizes the data dissemination program of the 1970 census.

Content of the tables.—Tables 1 through 30 appear in chapter A of this report; tables 31 through 83 appear in chapter B. The finding guide in the front of this book lists the characteristics covered in this report and shows the tables in which the various types of statistics appear. The amount of detail presented in this report is generally greater for larger places than for smaller ones. Maximum detail is shown for the State by urban and rural residence and for standard metropolitan statistical areas, urbanized areas, places of 10,000 inhabitants or more, and metropolitan counties. Somewhat less detail is shown for nonmetropolitan counties and places of 2,500 to 10,000. The least amount of detail is shown for places of 1,000 to 2,500.

Sample size.—The statistics presented in chapter A were collected on a 100-percent basis; that is, the questions for these subjects appeared on all questionnaires. The data shown in chapter B are based on a sample of housing units. More specifically, the data in chapter B are derived 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 housing units. The sampling rate for each subject is shown in table A of Appendix C, "Accuracy of the Data." Appendix C also presents information on the sampling variability associated with these data. The statistics for 1960 shown in chapter B are based on a 25-percent sample of housing units.

Statistics such as the number of owner-occupied and renter-occupied units usually appear in more than one table for a given area in chapter B. These figures may differ between tables, or in the same table, when characteristics for these units are derived from different samples. In addition, there may be differences between the 100-percent data in chapter A and the sample data in chapter B for the subjects which appear in both chapters.

Derived figures (percents, medians, etc.).—Shown in this report are percents and medians, as well as certain rates and ratios. 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. For all types of derived figures in this report, the figure is not presented (but indicated by three dots "...") if there are fewer than the prescribed number of cases in the distribution or the base. In chapter A, the minimum number of housing units is 5. In chapter B, for the 20-percent sample, the minimum number of housing units is 25; for the 15-percent sample, the minimum is 33; and for the 5-percent sample, the minimum is 100. Percents which round to less than 0.1 are not shown but indicated as zero (i.e., "—").

Medians for rooms and persons are rounded to the nearest tenth, for value to the nearest hundred dollars, and for rent to the nearest dollar. In computing medians for rooms and persons per housing unit, the whole number is used as the midpoint of the interval so that, for example, the category "3 rooms" is treated as an interval ranging from 2.5 up to 3.5 rooms. In computing median rent, units reported as "no cash rent" are excluded. The median is computed on the basis of the distribution as tabulated, which is sometimes more detailed than the distribution shown in this report. When the median falls in the lower terminal category of an open-end distribution, the method of presentation is to show the initial value of the next category followed by a minus sign; thus, for example, if the median falls in the category "Less than $5,000," it is shown as "$5,000—." When the median falls in the upper terminal category of an open-end distribution, the method of presentation is to show the initial value of the terminal category followed by a plus sign; thus, for example, if the median falls in the category "$50,000 or more," it is shown as "$50,000+."

Symbols.—A dash "—" signifies zero. Three dots "..." mean not applicable or that the base for a derived figure is too small for it to be shown, or that the data are being withheld to avoid disclosure of information for individual housing units. The symbol "U" means that the place is unincorporated. For urbanized areas and places established since 1960, the symbol "..." is shown for the 1960 population in housing units and population per occupied unit in tables 8 and 18.

Boundaries.—The data shown for 1970 relate to the boundaries as they existed on January 1, 1970. Information on boundary changes between 1960 and 1970 for certain types of areas is given in the 1970 Population Census PC(1)-A report for this State. Unless otherwise indicated, the data shown for 1960 relate to the areas as defined at the time of the 1960 census. One general exception is the 1960 data shown in the tables for standard metropolitan statistical areas; these data have been revised, where necessary, to conform to the boundaries of the SMSA as defined in 1970.

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 accompained 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 did so. 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 that did not mail back their forms, a followup was also made, in almost all cases by personal visit and in the remainder by telephone; vacant units were enumerated by personal visit.

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 interviewed for the additional questions in those households designated for the 15-percent and 5-percent samples.

The subjects covered in chapter A are those which were collected on a 100-percent basis. That is, the questions for these subjects appeared on all three questionnaires, the 80-percent, 15-percent, and 5-percent forms. The subjects covered in chapter B are all drawn from the 15-percent and 5-percent sample questionnaires.

PROCESSING PROCEDURES

The 1970 census questionnaires were specially designed to be processed by FOSDIC (Film Optical Sensing Device for Input to Computers). Respondents and enumerators (and for some few items, census clerks) marked the answers in predesignated positions which could be "read" by FOSDIC from a microfilm copy of the questionnaire onto computer 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 phototypesetting machine at the Government Printing Office. Another end result was the summary tape which is available for purchase, as described in Appendix D, "Publication and Computer Summary Tape Program."