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U.S. CENSUS OF HOUSING: 1960

Final Report HC(4) Part 1A-1

COMPONENTS OF INVENTORY CHANGE

Part 1A: 1950-1959 Components

United States and Regions

Prepared under the supervision of
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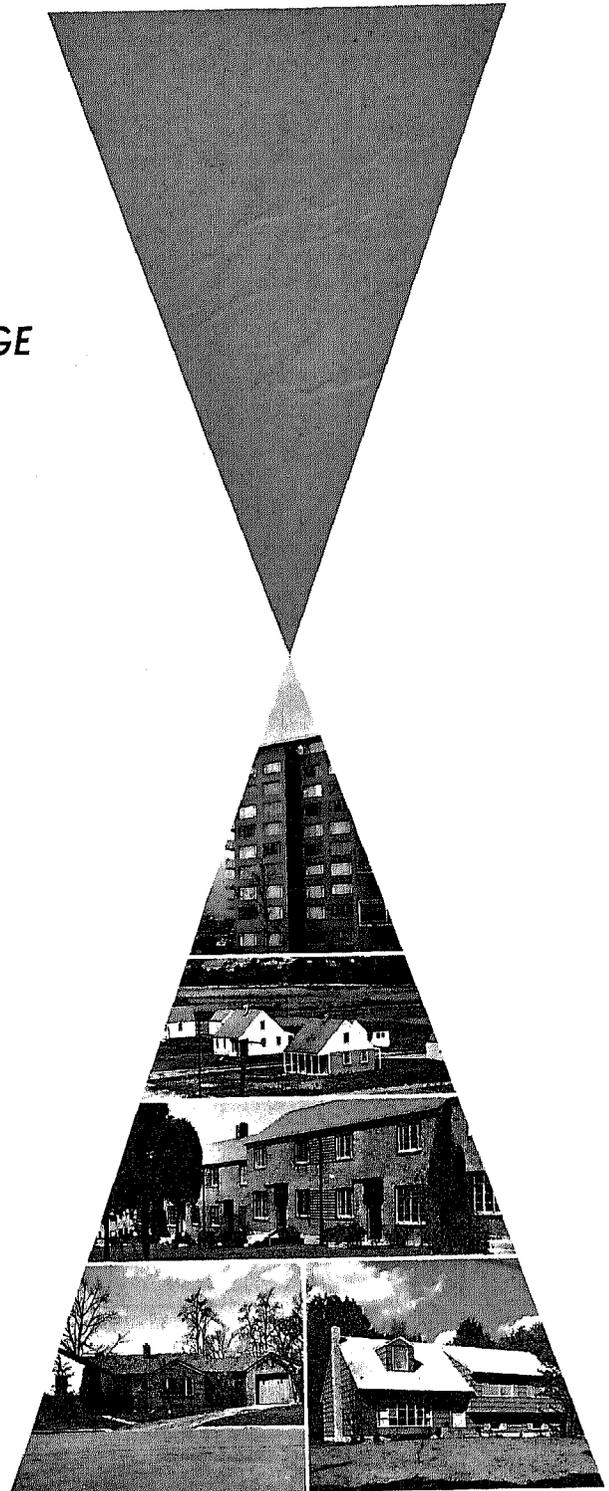


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PREFACE

This report presents statistics on counts and characteristics of changes in the housing inventory, 1950 to 1959. Basic characteristics are presented for such components as new construction and other additions, conversions, mergers, demolitions and other losses, and dwelling units which were the same in 1950 and 1959. The statistics are based on results of the December 1959 Components of Inventory Change survey, which is part of the 1960 Census of Housing. December 1959 is regarded as the survey date although the procedure for estimating some of the components required data compiled from the census returns of the April enumeration of the 1960 Census.

This report is one of the series of 18 reports which constitutes Part 1A of Volume IV. A separate report is issued for the United States, by regions, for the New York-Northeastern New Jersey Standard Consolidated Area, the Chicago-Northwestern Indiana Standard Consolidated Area, for the Atlanta, Boston, Dallas, Detroit, Los Angeles-Long Beach, Philadelphia, and Seattle Standard Metropolitan Statistical Areas; and for the Baltimore, Buffalo, Cleveland, Minneapolis-St. Paul, Pittsburgh, St. Louis, San Francisco-Oakland, and Washington (D. C.-Md.-Va.) Standard Metropolitan Statistical Areas. The last eight areas named had a population of over one million in the 1950 Census of Population; the first nine areas, three of which were under one million, are the areas for which separate statistics were provided in the 1956 National Housing Inventory, the first survey to measure components of change.

Part 1B of Volume IV provides additional cross tabulations of characteristics of new construction units and same units and data on the characteristics of the present and previous residences of recent movers, for the United States, by regions, and for the 17 metropolitan areas named above. The series of 18 reports constitutes 1960 Census of Housing, Volume IV, Components of Inventory Change, Part 1B, Inventory Characteristics.

Authorization for the 1960 Census of Housing was provided in the Act of Congress of August 31, 1954 (amended August 1957), which codified Title 13, United States Code. The law provides for a decennial census of housing, including utilities and equipment, to be taken in each of the 50 States, the District of Columbia, the Virgin Islands, Guam, and the Commonwealth of Puerto Rico. The law further provides that, in advance of, in conjunction with, or after the taking of each census, preliminary and supplementary statistics related to the main topic of the census may be collected.

The census program was designed in consultation with advisory committees and individuals to achieve a census having optimum value to users of housing statistics. The Housing Advisory Committee was organized by the Director of the Bureau of the Census and was made up of persons in private industry, universities, and local governments. It advised on various aspects of the housing census programs except the technical phases of the Residential Finance program for which the Technical Advisory Committee on Residential Finance was organized. A Federal Agency Population and Housing Census Council, organized by the Bureau of the Budget and made up of persons in Federal agencies, also advised on the basic programs. A joint staff committee, set up by the Administrator of the Housing and Home Finance Agency and the Director of the Bureau of the Census, concentrated on aspects of particular interest to the housing agencies. In addition to the committees, working groups of specialists in housing subjects assisted the Census Bureau staff in the evaluation and improvement of housing concepts. A number of other committees, groups, and individuals also made contributions to the planning of the housing census.

ACKNOWLEDGMENTS

A number of persons both within and outside the Bureau of the Census participated in the various activities of the December 1959 Components of Inventory Change survey. Specific responsibilities were exercised by members of the Housing, Statistical Methods, Decennial Operations, Field, and Geography Divisions. The survey was planned and developed under the direction of Wayne F. Daugherty, then Chief, assisted by Frank S. Kristof, then Assistant Chief, Housing Division. Beulah Washabaugh assisted in planning and developing the content of this report and, with the help of Philip S. Sidel and Aneda E. France, was responsible for the preparation of the textual materials. J. Hugh Rose, assisted by Meyer Zitter, was responsible for the development of plans for field work. Aaron Josowitz, assisted by Elmo E. Beach, Martin W. Gilbert, and William E. Derrah, developed and coordinated the survey procedures.

Important contributions were made by Glen S. Taylor, then Chief, Jervis Braunstein, Morris Gorinson, George E. Turner, Morton Somer, E. Richard Bourdon, and Orville Slye of the Decennial Operations Division in the processing and compilation of the statistics; George F. Klink and G. Paul Sylvestre of the Field Division in the collection of the information; and William T. Fay, Robert C. Klove, and Robert L. Hagan of the Geography Division in the preparation of the maps for enumeration and publication. The planning and development of the sample design and estimation procedures were under the direction of Joseph Steinberg, Robert H. Hanson, and Robert H. Finch, Jr., assisted by Arnold Sirota, Elaine V. Davidson, Bernie Cornett, Anthony Turner, and Elmore Seraille of the Statistical Methods Division. The technical editorial work was under the supervision of Mildred M. Russell of the Population Division, assisted by Louise L. Douglas. Important contributions were also made by the staffs of the Administrative Service Division, Everett H. Burke, Chief; Budget and Management Division, Charles H. Alexander, Chief; Data Processing Systems Division, Robert F. Drury, Chief; Personnel Division, James P. Taff, Chief; and Statistical Research Division, William N. Hurwitz, Chief.

PUBLICATION PROGRAM OF THE 1960 CENSUS OF HOUSING

Results of the 1960 Census of Housing are published in seven housing volumes as described below. A separate series containing the census tract reports is a joint publication with data from the 1960 Census of Population. A series of special reports for local housing authorities constitutes the remainder of the final reports. The source of the data is the April 1960 enumeration, except for Volumes IV and V which are based largely on the enumeration of units in a sample of land area segments, started in late 1959 and completed in 1960. Prior to the final reports, several series of preliminary and advance reports were issued. Some unpublished statistics can be obtained for the cost of preparing a copy and certain special tabulations can be prepared, on a reimbursable basis, on request to the Chief, Housing Division, Bureau of the Census, Washington 25, D. C.

Volume I (Series HC(1) reports). States and Small Areas. Information about all subjects covered in the April 1960 enumeration, with a separate report for the United States by regions and geographic divisions, each of the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands of the United States. In the State reports, information is shown for the State as a whole and for each standard metropolitan statistical area, urbanized area, place of 1,000 inhabitants or more, county, and the rural-farm and rural-nonfarm parts of the county. The volume covers occupancy characteristics such as tenure, vacancy status, color, number of persons; structural characteristics, such as number of rooms and year structure built; condition of unit; plumbing facilities, such as water supply, and toilet and bathing facilities; equipment and fuels, including heating equipment, air conditioning, television sets, clothes washing machine, heating fuel, cooking fuel, and water heating fuel; and financial characteristics including value and rent.

Volume II (Series HC(2) reports). Metropolitan Housing. Cross-tabulations of housing and household characteristics, with a separate report for the United States by geographic divisions, and for each of the 192 standard metropolitan statistical areas of 100,000 inhabitants or more in the United States and Puerto Rico. Separate statistics for each of the 134 places of 100,000 inhabitants or more are included in the metropolitan area reports.

Volume III (Series HC(3) reports). City Blocks. Separate reports for cities and other urban places having 50,000 inhabitants or more prior to and at the time of the 1960 Census, and for a number of smaller localities which arranged for block statistics. Data for a limited number of characteristics are presented by blocks. Statistics for 466 cities and localities in the United States and Puerto Rico are published in 420 separate reports.

Volume IV (Series HC(4) reports). Components of Inventory Change. Information on the source of the 1959 inventory and the disposition of the 1950 and 1956 inventories. Data are provided for components of change such as new construction, conversion, merger, demolition, and other additions and losses. Part 1 of the volume contains the 1950 to 1959 comparison, with a separate report for the United States by regions, and each of 17 selected metropolitan areas (15 standard metropolitan statistical areas, defined as of June 8, 1959, and 2 standard consolidated areas). Part 1 is published in two sets of reports for each area. Part 1A presents basic 1950 and 1959 data, with emphasis on the counts and characteristics of the components of change; Part 1B presents additional information on characteristics of the inventory, including characteristics of the present and previous residences of recent movers. Part 2 contains the 1957 to 1959 comparison, with a separate report for the United States by regions, and separate reports for 9 of the selected areas (standard metropolitan areas defined for the 1956 inventory).

Volume V. Residential Finance. Information on financing of residential property, including characteristics of mortgages, properties, and homeowners. Part 1 of the volume is a report on homeowner properties for the United States by regions, and each of 17 selected metropolitan areas (15 standard metropolitan statistical areas, defined as of June 8, 1959, and 2 standard consolidated areas). Part 2 is a report on rental and vacant properties for the United States.

Volume VI. Rural Housing. Cross-tabulations of housing and household characteristics for the 121 economic subregions of the United States, for rural-farm and rural-nonfarm housing units.

Volume VII. Housing of Senior Citizens. Cross-tabulations of housing and household characteristics of units occupied by persons 60 years old and over, for the United States, each of the 50 States and the District of Columbia, and selected standard metropolitan statistical areas.

Series PHC(1) reports. Census Tracts. Separate reports for 180 tracted areas in the United States and Puerto Rico. The reports contain information, by census tracts, on both housing and population subjects. (This series is the same as the tract reports included in the publication program for the 1960 Census of Population.)

Series HC(S1) reports. Special Reports for Local Housing Authorities. Separate reports for 139 localities in the United States. The program was requested by, and planned in cooperation with, the Public Housing Administration. The reports contain data on both owner- and renter-occupied housing units defined as substandard by Public Housing Administration criteria, with emphasis on gross rent, size of family, and income of renter families.

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- | | | |
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2. Atlanta SMSA
3. Boston SMSA
4. Chicago, Ill.-Northwestern Indiana Standard Consolidated Area
5. Dallas SMSA
6. Detroit SMSA | 7. Los Angeles-Long Beach SMSA
8. New York-Northeastern New Jersey Standard Consolidated Area
9. Philadelphia SMSA
10. Seattle SMSA
11. Baltimore SMSA
12. Buffalo SMSA | 13. Cleveland SMSA
14. Minneapolis-St. Paul SMSA
15. Pittsburgh SMSA
16. St. Louis SMSA
17. San Francisco-Oakland SMSA
18. Washington (D.C.-Md.-Va.) SMSA |
|--|--|--|

SUBJECTS PRESENTED BY COMPONENT OF CHANGE AND TABLE NUMBER

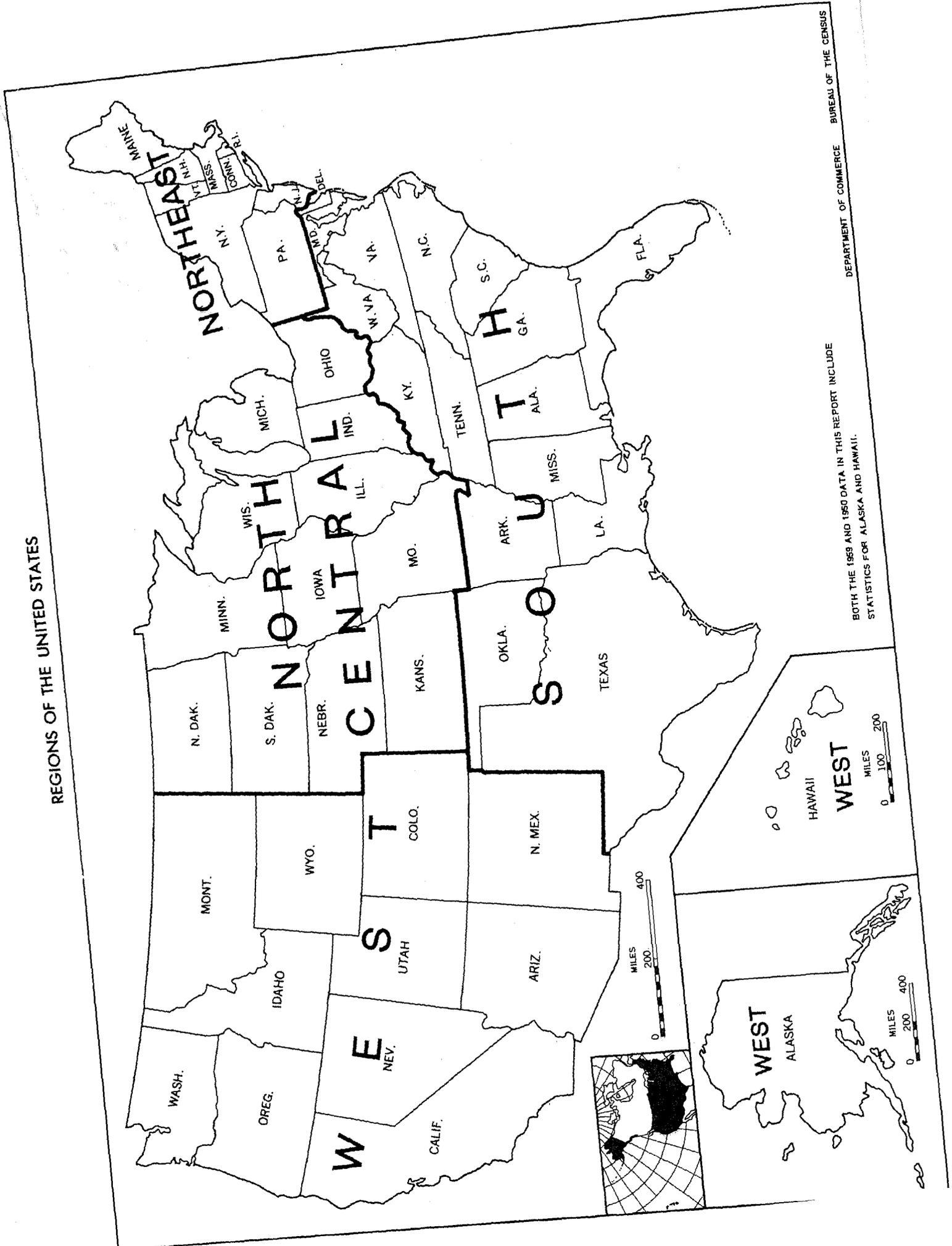
(Data are presented for the United States and each of the four regions, by "inside SMSA's" and "outside SMSA's," except as noted below. For the United States, data for "inside SMSA's" are presented separately by "in central cities" and "not in central cities")

Subject	1959		1950, total units ¹	1959		1950		1959 by 1950, same units	1959, new construction units
	Total units	New construction units		Units added through-- New construction Other sources Units changed by-- Conversion Merger Same units	Units lost through-- Demolition Other means Units changed by-- Conversion Merger Same units				
OCCUPANCY CHARACTERISTICS									
	Table	Table	Table	Table	Table	Table	Table	Table	Table
Color by tenure.....	1	1	1	2	3	4	...	...	...
Owner of unit.....	1	1	...	...	...	...	...	...	...
Age of owner.....	1	1	...	...	...	...	...	...	...
Persons.....	1	1	1	2	3	...	...	...	6, 7
By tenure.....	1	1	...	...	...	...	...	...	...
Median by tenure.....	1	1	1	2	3	...	...	...	...
Persons per room.....	1	1	1	2	3	...	...	...	...
By tenure.....	1	1	1	...	...	...	...	...	...
Tenure by color.....	1	1	1	2	3	4	...	...	...
Year moved into unit.....	1	1	...	...	...	...	...	...	...
By tenure.....	1	1	...	...	...	...	...	...	...
Vacancy status.....	1	1	1	2	3	4	...	...	...
STRUCTURAL CHARACTERISTICS									
Rooms.....	1	1	1	2	3	...	...	...	6, 7
By tenure.....	1	1	1	2	3	...	...	...	...
Median by tenure.....	1	1	1	2	3	...	...	...	...
Units in structure.....	1	1	1	2	3	...	...	...	...
By tenure.....	1	1	1	...	...	...	...	...	...
Trailers by tenure.....	1	1	1	...	...	...	...	...	...
Year structure built.....	1	1	1	2	3	...	...	...	...
By tenure.....	1	1
CONDITION AND PLUMBING FACILITIES									
Bathrooms.....	1	1	...	2
By tenure.....	1	1	3	5
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By tenure.....	1	1	1	2	3	5
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Own children under 18 years old.....	1	1
By tenure.....	1	1
Own children under 18 by age group.....	1	1
By tenure.....	1	1	...	...	...	...	...	...	...
Persons 65 years old and over.....	1	1	...	...	...	...	...	...	...
By tenure.....	1	1	...	...	...	...	...	...	...
Presence of nonrelatives.....	1	1	*1	...	...	...	...	...	...
By tenure.....	1	1	...	...	...	...	...	...	...

¹ 1950 data in table 1 are shown only for total United States and each region, with no detail by inside and outside SMSA's.

* Data on gross rent are shown for total United States and each region, excluding Alaska and Hawaii; data on household composition and presence of nonrelatives are shown only for total United States, excluding Alaska and Hawaii.

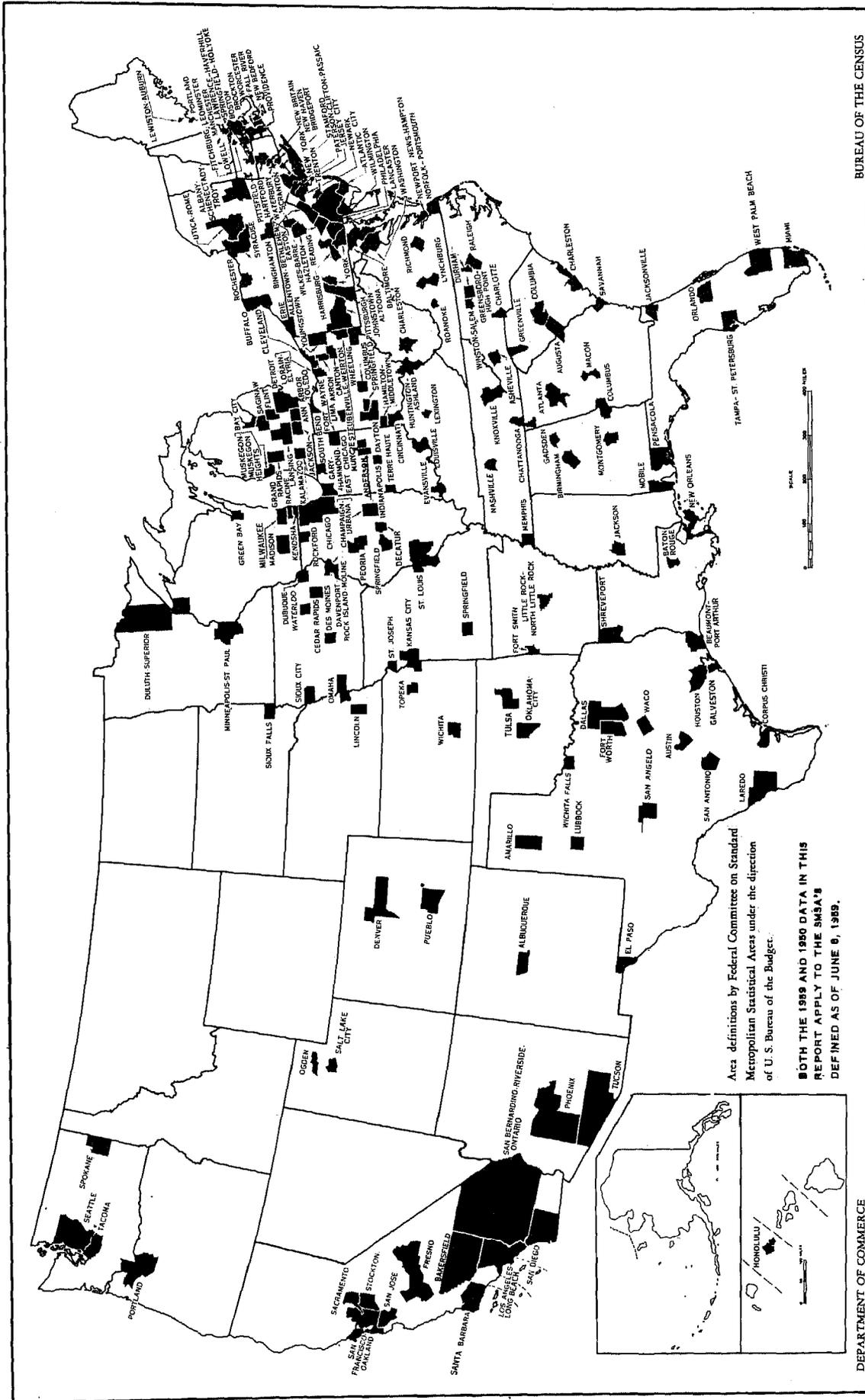
REGIONS OF THE UNITED STATES



BUREAU OF THE CENSUS
DEPARTMENT OF COMMERCE

BOTH THE 1959 AND 1960 DATA IN THIS REPORT INCLUDE
STATISTICS FOR ALASKA AND HAWAII.

STANDARD METROPOLITAN STATISTICAL AREAS: 1959



Area definitions by Federal Committee on Standard Metropolitan Statistical Areas under the direction of U. S. Bureau of the Budget.

BOTH THE 1959 AND 1980 DATA IN THIS REPORT APPLY TO THE SMSA'S DEFINED AS OF JUNE 9, 1989.

Components of Inventory Change

1950 TO 1959 COMPONENTS

GENERAL

This report presents statistics on the counts and characteristics of the components of change in the housing inventory, 1950 to 1959. The statistics relate to such components as new construction and other additions, conversions, mergers, demolitions and other losses, and dwelling units that were the same in 1950 and 1959. Data are based on information for a sample of dwelling units enumerated in the December 1959 Components of Inventory Change survey as part of the 1960 Census of Housing. The survey was designed to measure changes since the 1950 Census, taken in April 1950. Because comparison with 1950 was made on a unit-by-unit basis, the dwelling unit as defined in 1950 was used as the reporting unit in this survey.

This report presents simple distributions of the basic 1959 and 1950 characteristics for the total inventory and for the components of change. The 1959 characteristics for the total inventory are presented in this report to show the relation of the characteristics of individual components to the total. (See 1960 Census of Housing, Volume I, States and Small Areas, United States Summary for detailed characteristics of the total inventory, based on the April 1960 enumeration.) For units classified as "same," the 1959 characteristic is cross-tabulated by the 1950 characteristic for tenure and color and for condition and plumbing facilities. For units classified as "new construction," value and rent are cross-tabulated by number of rooms, number of persons, and household composition.

In this report, separate statistics are published for the United States and each of the four regions, by inside and outside standard metropolitan statistical areas. In addition, statistics for "inside standard metropolitan statistical areas" for the United States are shown separately for dwelling units "in central cities" and "not in central cities." Both the 1959 and 1950 data relate to the standard metropolitan statistical areas defined as of June 8, 1959. In the individual reports for selected metropolitan areas (listed on page VII), the data for the 15 standard metropolitan statistical areas relate to the boundaries as of June 8, 1959; the data for the 2 standard consolidated areas relate to the boundaries in December 1959, which were the same boundaries used for the April enumeration of the 1960 Census.

DESCRIPTION OF TABLES

The 1959 data in table 1 and both the 1959 and 1950 data in tables 2 to 7 are presented for the United States by inside standard metropolitan statistical areas (separately for "in central cities" and "not in central cities") and outside standard metropolitan statistical areas. Data for each of the four regions are shown by inside and outside standard metropolitan statistical areas. The 1950 data in table 1 are shown only for total United States and each region, with no detail by inside and outside standard metropolitan statistical areas.

Except for the 1950 data in table 1, which are based largely on the 100-percent enumeration, all the data in this report are based on a sample of dwelling units. Data on the counts of the components of change, and some of the characteristics of the components, are based on a larger sample than data for other characteristics (see "Sample design").

Table 1 presents 1959 data for the total inventory and separately for "new construction" units (units built during the period 1950 to 1959). The table also presents 1950 data for the total inventory. Table 1 contains the greatest amount of detail in terms of the number of categories shown for an item. Both the 1959 and 1950 statistics are shown for the following subjects: Tenure, color, vacancy status, persons, and persons per room; rooms, units in structure, and year structure built; condition and plumbing facilities; and value, gross rent, and contract rent. In addition, 1959 statistics are presented for: Bathrooms; year moved into unit; household composition, persons 65 years old and over, own children under 18 years old, own children by age group, and presence of nonrelatives; owner of unit and age of owner. Data on household composition and presence of nonrelatives for 1950 are shown only for total United States.

The 1959 data are based on a sample. The 1950 data in table 1, except for "year structure built," "household composition," and "presence of nonrelatives," are based on the 100-percent enumeration in the 1950 Census of Housing. (See table 1 in section on "Sampling variability.") Except where otherwise noted in the 1950 statistics, data for Alaska and Hawaii are included.

To permit a direct comparison between the 1959 and 1950 statistics, the "not reported" category for a characteristic in 1950 was eliminated. The units in this category were distributed in the same proportion as the reporting units.

Table 2 presents 1959 data for units created since 1950 and for units classified as "same." The specific subjects presented are: Tenure, color, and vacancy status; persons and persons per room; rooms, units in structure, and year structure built; condition and plumbing facilities and bathrooms; and value, gross rent, and contract rent. The components for which each subject is presented are: Units added through new construction, units added through other sources, units changed by conversion, units changed by merger, and "same" units. For units changed by conversion or merger, the 1959 figures reflect the number of units resulting from the conversion or merger.

Table 3 presents 1950 data for units removed from the inventory since 1950 and for "same" units. The subjects are the same as those presented in table 2, with the exception of the item on bathrooms, which was not included in the 1950 Census. The number of categories shown for an item also is the same as for the 1959 data in table 2. The components for which each subject is presented are: Units lost through demolition, units lost through other means, units changed by conversion, units changed by merger, and "same" units. For units changed by conversion or merger, the 1950 figures reflect the number of units that existed prior to the conversion or merger.

The 1950 data in table 3 are based on units in the sample for the December 1959 survey. The 1950 information was transcribed from the 1950 Census record for the sample unit and tabulated by the component of change. Because it was not possible to identify some of the units in the 1950 Census records, data on characteristics in table 3 are restricted to units for which information from the 1950 records was available. For this reason, and because the data in table 3 are based on a

sample, the sum of the entries in the five columns for a category will differ from the 1950 figure for the corresponding category in table 1. For example, the number of units with "7 rooms or more" obtained by adding the entries for the five components in table 3 will differ from the 1950 figure for number of units with "7 rooms or more" in table 1. As a result of the estimation procedure used, the sum of the figures on the "all dwelling units" line will be essentially identical with the 1950 figure for "all dwelling units" in table 1.

For "same" units, the total number of units in table 3 is identical with the total in table 2, but the distribution in table 3 represents the characteristics in 1950, and the distribution in table 2 represents the characteristics in 1959.

Tables 4 and 5 are cross-tabulations of 1959 and 1950 characteristics for units classified as "same" in 1950 and 1959. The data in both tables are restricted to "same" units for which the 1950 Census records were available. The 1959 characteristic is cross-tabulated by the 1950 characteristic for tenure, color, and vacancy status in table 4 and condition and plumbing facilities in table 5.

Tables 6 and 7 are cross-tabulations of 1959 characteristics for "new construction" units. In table 6, value of owner-occupied units is tabulated by rooms, persons, and household composition. In table 7, gross rent of renter-occupied units is tabulated by the same three items.

Medians and percentages are not shown when the base comprises fewer than 25 sample cases. Percentages are not shown if they are less than 0.1 percent.

Leaders (...) in a data column indicate that either there are no cases in the category or the data are suppressed, for the reasons described above. Leaders are also used where data are inapplicable or not available.

A plus (+) or a minus (-) sign after a median indicates that the median is above or below that number. For example, a median of "\$5,000-" for value of property indicates that the median fell in the interval "less than \$5,000" and was not computed from the data as tabulated.

MAPS

Included in this report is a map of the United States showing the four regions and a map showing the location of the standard metropolitan statistical areas defined as of June 8, 1959. There are minor differences between the boundaries for the December 1959 survey and those for the April 1960 Census (see section on "Standard metropolitan statistical areas").

RELATION TO APRIL 1960 CENSUS OF HOUSING

The December 1959 Components of Inventory Change survey is part of the 1960 decennial census program. Although the concepts of components of change are unique to this portion of the census program, the definitions for many of the characteristics that were enumerated in 1959 are the same as those in the April enumeration of the 1960 Census (see "Definitions and explanations"). Some data on characteristics of housing units cross-tabulated by year structure built are available in 1960 Census of Housing, Volume II, Metropolitan Housing; simple distributions of characteristics of the total inventory are available in Volume I, States and Small Areas.

Differences between the December 1959 survey and the April 1960 Census include: The use of the "dwelling unit" concept in 1959 in contrast to the "housing unit" concept in 1960; the use of a sample of land area segments in 1959 in contrast to the 100-percent coverage for some items and a systematic sample of housing units for others in 1960; and the extensive use of self-enumeration in 1960 in contrast to direct interview and the use of 1950 Census records in the 1959 survey. Further, with respect to standard metropolitan statistical areas, there are some differences between 1959 and 1960 in the number of standard metropolitan statistical areas and their boundaries. As

indicated earlier, the December 1959 survey provides data on characteristics of the components of change, whereas the April 1960 Census provides detailed data on characteristics of the total inventory. (See 1960 Census of Housing, Volume I, States and Small Areas for more complete discussion of the April 1960 Census.)

Although information for the April 1960 Census was collected as of April 1960, information for the Components of Inventory Change survey was collected as of the date of enumeration. For the latter, the bulk of the enumeration was completed by December 1959, and the statistics may be regarded as referring to that date. In the estimation procedure used for some of the components, however, data from a sample of the census returns of the April 1960 enumeration were required (see "Estimation procedure").

COMPARABILITY WITH 1950 CENSUS OF HOUSING

Essentially the same definitions, including the "dwelling unit" concept, were used in the December 1959 survey as were used in the 1950 Census of Housing. Where there are differences in concepts for the characteristics presented in this report, they are discussed in the section on "Definitions and explanations." Sampling variability is another factor to consider when comparing the 1959 and 1950 data.

Comparability between 1960 and 1950 concepts and the availability of related data prior to 1950 are discussed in 1960 Census of Housing, Volume I, States and Small Areas.

RELATION TO 1956 NATIONAL HOUSING INVENTORY

Data on components of change were collected for the first time in the National Housing Inventory survey in 1956. The 1959 program used essentially the same concepts and both programs used the "dwelling unit" as the reporting unit. The 1956 program provided separate statistics for conterminous United States (that is, United States exclusive of Alaska and Hawaii) and regions, inside and outside standard metropolitan statistical areas (with further detail by "in central cities" and "not in central cities" for the United States). In addition, the program provided statistics for each of 9 standard metropolitan areas--Atlanta, Boston, Chicago, Dallas, Detroit, Los Angeles, New York-Northeastern New Jersey, Philadelphia, and Seattle. The 1959 procedures made use of some of the information obtained in the earlier survey (see "Collection and processing of data").

Among the subjects covered in the 1956 survey which are also presented in this report are: Tenure, color, and vacancy status; persons, year moved into unit, and sex and age of head (household composition); rooms, units in structure, and year structure built; condition and plumbing facilities; and value, gross rent, and contract rent (see 1956 National Housing Inventory, Volume I, Components of Change 1950 to 1956 and Volume III, Characteristics of the 1956 Inventory).

The 1959 and 1956 characteristics of the total inventory may be compared, taking into account any changes in boundaries since 1956 and relevant estimates of sampling variability. Comparison of counts and characteristics for individual components, however, should be made with care. Subtraction of the 1950-1956 results from the 1950-1959 results for a component does not necessarily produce component-of-change data for the period 1957 to 1959. Units can shift from one component in 1956 to another component by 1959 (for example, from "same" in 1956 to conversion by 1959). Units lost from the inventory between 1950 and 1956 can shift to another type of loss by 1959 (for example, to nonresidential use by 1956 and demolished by 1959). In other cases, a 1950 unit can be lost from the inventory by 1956 but restored to its 1950 dwelling-unit use by 1959. In addition, differences in procedures for collecting, editing, and tabulating the data can affect the relation between the 1950-1956 results and the 1950-1959 results.

COMPARABILITY WITH DATA FROM OTHER SOURCES

In the sections below, data from the December 1959 Components of Inventory Change survey are compared with statistics from the housing starts series and from current surveys of households and vacancies. Comparability with the April 1960 Census of Housing is discussed under "Relation to April 1960 Census of Housing," and comparison of the counts of dwelling units and housing units from the two enumerations is discussed in the definition of "Dwelling unit." The Components of Inventory Change survey provides data on the characteristics of the components of change in the housing inventory, the April 1960 Census provides data on the detailed characteristics of the total inventory, and the housing starts series and current surveys provide current data which are useful in analyzing trends.

Housing starts series.--Statistics on "year structure built" and counts of "new construction" units differ in several respects from statistics on residential construction from other sources. Statistics on housing starts were compiled by the Bureau of Labor Statistics, Department of Labor, until July 1959 and by the Bureau of the Census since that time. Statistics on housing starts are not entirely comparable with estimates from the December 1959 Components of Inventory Change survey. In particular, there are differences in coverage and definitions, as well as differences in timing of starts in relation to completions.

Estimates of housing starts compiled by the Bureau of Labor Statistics, and continued on the same basis through 1959 by the Bureau of the Census, are referred to as the "old" series. The series is described as covering only housing designed and constructed as permanent nonfarm housekeeping units in structures intended primarily for residential use.

According to the results of the Components of Inventory Change survey, the estimated number of all units added by new construction from April 1950 to December 1959 is approximately 15,003,000. This number includes all types of dwelling units; it covers some types not included in the housing starts series--specifically farm housing, construction in Hawaii and Alaska, trailers that have structural additions or are mounted on foundations, mobile trailers that are occupied and are considered the usual place of residence of the occupants, quarters that qualify as dwelling units in hotels, and dwelling units in structures that are primarily nonresidential. Furthermore, the Components of Inventory Change survey counted units constructed between 1950 and 1959 and still in existence at the time of the survey, and counted them in terms of the number of units they comprised in 1959. Thus, the count reflects additions due to conversion, and losses due to merger, demolition, or other cause. Dwelling units created from newly-built nonresidential space would be counted as new construction. Quasi-units and vacant mobile trailers are excluded.

The estimate of housing starts for the same period, based on the old series, is roughly 11,737,000 nonfarm units. Adjusting for a lag between the start and completion of a unit, this estimate becomes 11,633,000 completed nonfarm units. Further adjustments can be made for units included in the Components of Inventory Change survey but not covered in the old series of housing starts. An upward revision of 2½ percent to cover new construction of farm housing and new construction in Alaska and Hawaii would bring the total up to 11,924,000. Rough estimates for other types of units covered in the Components of Inventory Change survey but not in the series of housing starts (trailers mounted on foundations, occupied mobile trailers, quarters classified as dwelling units in hotels, dwelling units in structures which are primarily nonresidential, and the additional units resulting from conversion of newly constructed residential buildings or created from newly constructed nonresidential space) would raise the starts to 12,500,000, which is 17 percent below the 15,003,000 new construction units estimated from the Components of Inventory Change survey. The figures on new construction units from 1950 to 1956 as derived

from the National Housing Inventory conducted at the end of 1956 differed by approximately the same percentage from the housing starts data for that period.

Part of the remaining 17-percent difference between the Components of Inventory Change estimate of new construction units and the estimate based on housing starts could be due to sampling variability. The discrepancy still remaining reflects differences in the degree of coverage and accuracy of enumeration and reporting. Beginning with 1959, the Bureau of the Census broadened the scope of the old housing starts series and improved its coverage through changes in the survey methods for the "new" series of housing starts. The new series includes substantially all types of accommodations designed as family living quarters and constructed in new buildings intended primarily as housekeeping residential buildings for nontransient occupancy.

Experience with the new series from 1959 to 1961, indicates that it is well above the level of the old one, largely because the new series has more complete coverage in areas that do not require building permits, and because it includes an allowance for construction which takes place without a building permit in areas where permits are required. (Some part of the increase is also due to the inclusion in the new series of some seasonal units, low-value units, and temporary units that formerly were omitted. Precise calculations of the effect of these additions are not available but the effect is believed to be small.) It is not possible, at this time, to produce exact figures on the amount of increase resulting from the improved coverage in the new series. The increase does not appear to be as great as 17 percent; however, it is close enough to the 17 percent so that sampling variability could account for the difference still remaining.

Current surveys of households and vacancies.--Estimates of occupied and vacant units in this report may be compared with estimates from current surveys conducted by the Bureau of the Census. Annual estimates of the number of households, which are equivalent by definition to occupied dwelling units, have been published for March of each year in Current Population Reports, Series P-20, through estimates derived from the Current Population Survey (CPS). Quarterly statistics on residential vacant units, based on information from the Housing Vacancy Survey (HVS) which is conducted in conjunction with the CPS, are published in Current Housing Reports, Series H-111.

The estimated number of occupied dwelling units (households) from the Components of Inventory Change survey in 1959 is 52,955,000, including an estimate for Alaska and Hawaii. The estimate in the March 1959 CPS, based on the dwelling unit definition and excluding Alaska and Hawaii, is 51,302,000 households; the estimate in the March 1960 CPS, based on the housing unit definition and including roughly 200,000 for Alaska and Hawaii, is 52,610,000 households. An estimate for December 1959 derived from the March 1959 and the March 1960 CPS would not be significantly different from the December 1959 estimate from the Components of Inventory Change survey; the two estimates for December 1959 would be subject to sampling variability (at the 2-standard error level) greater than the observed difference. In addition to sampling variability, differences may be attributed to such factors as survey techniques, methods used in weighting the sample figures, and the experience and training of the enumerators.

The Components of Inventory Change survey in December 1959 found that vacant units amounted to 9.4 percent of the total dwelling units, compared with 9.5 percent obtained in the HVS for the fourth quarter 1959. The available-for-sale vacancy rate was 0.9 percent from the Components of Inventory Change survey and 0.6 percent from the HVS; the available-for-rent vacancy rates were 2.7 and 2.4 percent, respectively. The differences between the rates can be attributed to sampling variability; however, the rates may also be affected by the factors noted above in connection with the discussion of household estimates.

1960 PUBLICATION PROGRAM

Final housing reports.--Results of the 1960 Census of Housing are published in Volumes I to VII and in a joint housing and population series consisting of reports for census tracts. A series of special reports for local housing authorities constitutes the remainder of the final reports. Volumes I to IV and the census tract reports are issued as series of individual reports, with Volumes I and II issued also as bound volumes. Volumes V to VII are issued only as bound volumes.

The source of Volumes I, II, III, VI, and VII and the housing data in the census tract reports is the April enumeration of the 1960 Census of Housing. The special reports for local housing authorities are based on results of the April enumeration and, for most areas, on data collected at a later date for nonsample households.

Data for Volumes IV and V are based largely on the enumeration of units in a sample of land area segments, started in late 1959 and completed in 1960. Separate data are published for the United States and 17 selected metropolitan areas (15 standard metropolitan statistical areas and 2 standard consolidated areas). The areas for which separate data are provided in Part 1 of Volume IV and in Part 1 of Volume V consist of the New York-Northeastern New Jersey and the Chicago-Northwestern Indiana Standard Consolidated Areas and the following standard metropolitan statistical areas: Atlanta, Boston, Dallas, Detroit, Los Angeles-Long Beach, Philadelphia, Seattle, Baltimore, Buffalo, Cleveland, Minneapolis-St. Paul, Pittsburgh, St. Louis, San Francisco-Oakland, and Washington, D.C. The first nine areas named (the two consolidated areas and seven standard metropolitan statistical areas) are the areas for which separate data are provided in Part 2 of Volume IV.

The titles and contents of the reports are described on page IV. For the most part, the reports are comparable with those published from the 1950 Census of Housing. The 1960 Volumes I, II, and VI are similar to 1950 Volumes I, II, and III, respectively. Volume III of 1960 corresponds to the series of reports on block statistics which constituted 1950 Volume V. Volume IV of 1960 has no 1950 counterpart but corresponds to Volumes I and III of the 1956 National Housing Inventory. Volume V of 1960 corresponds to Volume IV of 1950 and, in part, to Volume II of the 1956 National Housing Inventory. In 1950, census tract reports were published as Volume III of the 1950 Census of Population. Special reports for local housing authorities were published for 219 areas in 1950 Census of Housing, Series HC-6, Special Tabulations for Local Housing Authorities. The type of data presented in 1960 Volume VII has not been published in previous census reports.

Preliminary and advance reports.--Statistics for many of the subjects covered in the census were released in several series of preliminary and advance reports. The figures in the preliminary and advance reports are superseded by the data in the final reports.

AVAILABILITY OF UNPUBLISHED DATA

During the processing of the data for publication, more data are tabulated than it is possible to print in the final reports. A limited amount of unpublished data is available and photocopies can be provided at cost. Also, certain special tabulations can be prepared on a reimbursable basis. Requests for photocopies or for additional information should be addressed to Chief, Housing Division, Bureau of the Census, Washington 25, D.C.

DEFINITIONS AND EXPLANATIONS

The concepts of components of change, that pertain uniquely to components of inventory change programs, are essentially unchanged from those used in the first such survey conducted in 1956. Comparison with the 1956 survey can be made only for selected areas and selected characteristics (see "Relation to 1956 National Housing Inventory").

In the definitions and explanations of the characteristics of the housing inventory, which are given below, comparison is made with the definitions used in the April enumeration of the 1960 Census and in the 1950 Census. References to the April 1960 Census pertain to data in 1960 Census of Housing, Volume I, States and Small Areas, except as otherwise noted. References to the 1950 Census generally pertain to data in 1950 Census of Housing, Volume I, General Characteristics. For purposes of measuring unit-by-unit change since 1950, the 1950 concept of "dwelling unit" was retained. Definitions of characteristics, for the most part, are comparable with those used in the April 1960 Census as well as in the 1950 Census. In both the April 1960 Census and the 1950 Census reports, data are available for the total housing inventory, but not for components of change.

Comparability is affected by differences in procedure as well as differences in definition and description of categories. Information for this report was obtained by direct interview, except for a few items which were reported by the enumerator on the basis of his observation, and by a combination of direct interview and comparison with the 1950 Census records for purposes of determining the component of change. In the 1950 Census, information was obtained by direct interview and observation, and in the April 1960 Census by a combination of self-enumeration, direct interview, and observation by the enumerator.

The definitions which follow conform to those provided to the enumerator and reflect the intended meaning of the question

asked. As in all surveys, there were some failures to execute the instructions exactly, and some erroneous interpretations have undoubtedly gone undetected.

AREA CLASSIFICATIONS

Standard metropolitan statistical area (SMSA).--To permit all Federal statistical agencies to utilize the same areas for the publication of general-purpose statistics, the Bureau of the Budget has established "standard metropolitan statistical areas" (SMSA's). Each such area is defined by the Bureau of the Budget with the advice of the Federal Committee on Standard Metropolitan Statistical Areas, a committee composed of representatives of the major statistical agencies of the Federal Government. The criteria used by the Bureau of the Budget in establishing the SMSA's are presented below. (See the Bureau of the Budget publication Standard Metropolitan Statistical Areas, U.S. Government Printing Office, Washington 25, D.C., 1961.)

The definition of an individual standard metropolitan statistical area involves two considerations: First, a city or cities of specified population to constitute the central city and to identify the county in which it is located as the central county; and second, economic and social relationships with contiguous counties which are metropolitan in character, so that the periphery of the specific metropolitan area may be determined.¹ Standard metropolitan statistical areas may cross State lines.

¹ Central cities are those appearing in the standard metropolitan statistical area title. A "contiguous" county either adjoins the county or counties containing the largest city in the area, or adjoins an intermediate county integrated with the central county. There is no limit to the number of tiers of outlying metropolitan counties so long as all other criteria are met.

The criteria for population relate to a city or cities of specified size.

1. Each standard metropolitan statistical area must include at least:

- a. One city with 50,000 inhabitants or more, or
- b. Two cities having contiguous boundaries and constituting, for general economic and social purposes, a single community with a combined population of at least 50,000, the smaller of which must have a population of at least 15,000.

2. If each of two or more adjacent counties has a city of 50,000 inhabitants or more (or twin cities under 1b) and the cities are within 20 miles of each other (city limits to city limits), they will be included in the same area unless there is definite evidence that the two cities are not economically and socially integrated.

The criteria of metropolitan character relate primarily to the attributes of the contiguous county as a place of work or as a home for a concentration of nonagricultural workers.

3. At least 75 percent of the labor force of the county must be in the nonagricultural labor force.²

4. In addition to criterion 3, the county must meet at least one of the following conditions:

a. It must have 50 percent or more of its population living in contiguous minor civil divisions³ with a density of at least 150 persons per square mile, in an unbroken chain of minor civil divisions with such density radiating from a central city in the area.

b. The number of nonagricultural workers employed in the county must equal at least 10 percent of the number of nonagricultural workers employed in the county containing the largest city in the area, or the county must be the place of employment of 10,000 nonagricultural workers.

c. The nonagricultural labor force living in the county must equal at least 10 percent of the number in the nonagricultural labor force living in the county containing the largest city in the area, or the county must be the place of residence of a nonagricultural labor force of 10,000.

5. In New England, the city and town are administratively more important than the county, and data are compiled locally for such minor civil divisions. Here, towns and cities are the units used in defining standard metropolitan statistical areas. In New England, because smaller units are used and more restricted areas result, a population density criterion of at least 100 persons per square mile is used as the measure of metropolitan character.

The criteria of integration relate primarily to the extent of economic and social communication between the outlying counties and central county.

6. A county is regarded as integrated with the county or counties containing the central cities of the area if either of the following criteria is met:

- a. Fifteen percent of the workers living in the county work in the county or counties containing central cities of the area, or
- b. Twenty-five percent of those working in the county live in the county or counties containing central cities of the area.

Only where data for criteria 6a and 6b are not conclusive are other related types of information used as necessary. This information includes such items as average telephone calls per subscriber per month from the county to the county containing

² Nonagricultural labor force is defined as those employed in nonagricultural occupations, those experienced unemployed whose last occupation was a nonagricultural occupation, members of the Armed Forces, and new workers.

³ A contiguous minor civil division either adjoins a central city in a standard metropolitan statistical area or adjoins an intermediate minor civil division of qualifying population density. There is no limit to the number of tiers of contiguous minor civil divisions so long as the minimum density requirement is met in each tier.

central cities of the area; percent of the population in the county located in the central city telephone exchange area; newspaper circulation reports prepared by the Audit Bureau of Circulation; analysis of charge accounts in retail stores of central cities to determine the extent of their use by residents of the contiguous county; delivery service practices of retail stores in central cities; official traffic counts; the extent of public transportation facilities in operation between central cities and communities in the contiguous county; and the extent to which local planning groups and other civic organizations operate jointly.

The title of an SMSA always identifies the central city or cities. The largest city of an SMSA is a central city. Up to two additional cities in an SMSA may be central cities on the basis and in the order of the following criteria: (a) The additional city has at least 250,000 inhabitants; (b) the additional city has a population of one-third or more of that of the largest city and a minimum population of 25,000 except that, in the case of twin cities, both are central cities.

For the United States as a whole and for each region, separate statistics are published for dwelling units inside and outside SMSA's, with boundaries defined as of June 8, 1959. The SMSA's are outlined on the map on page IX. In the December 1959 survey, 189 areas were designated SMSA's (including Anderson, Ind., which was an SMSA for the December 1959 survey but not for the April 1960 Census). The 189 areas were designated SMSA's on the basis of data from the 1950 Census of Population, special censuses, and other information available prior to June 1959. The 189 SMSA's include the 4 SMSA's in the New York-Northeastern New Jersey Standard Consolidated Area and the 2 SMSA's in the Chicago-Northwestern Indiana Standard Consolidated Area (see individual report for description of the SCA). For the April 1960 Census, an additional 24 areas were so designated, making a total of 212 SMSA's in the United States (with allowance for Anderson, Indiana). Practically all the 24 areas are SMSA's with central cities which did not fulfill the population size requirement on the basis of the 1950 Census count and for which no special censuses were taken prior to the 1960 Census. Units in the areas designated SMSA's for the April 1960 Census but not for the December 1959 survey amount to approximately 2½ percent of the total 1960 housing units in the 212 areas.

Data for "in central cities," shown for the United States, are for central cities defined as of June 8, 1959. The central cities designated for the December 1959 survey are the same as those designated for the April 1960 Census in the 188 areas which were SMSA's both times.

In 1950, standard metropolitan areas (SMA's) were established in connection with cities of 50,000 inhabitants or more in 1950. There were 169 such areas, including Honolulu. In terms of 1950 counts, the net addition resulting from changes in boundaries and the designation of new areas for the December 1959 survey is roughly 3 percent of the total 1950 dwelling units in the 1950 SMA's.

Urban-rural and farm-nonfarm residence.--Although this report contains no separate statistics for urban and rural housing or for farm and nonfarm housing, these concepts are applied when determining which units are included in the data on financial characteristics. For other characteristics, all units are included--urban and rural and farm and nonfarm.

For this report, urban areas are those designated urban for the 1950 Census. No adjustment was made for the fact that some areas which were rural in 1950 would have been urban in 1959, and vice versa.

In 1950, urban housing comprised all dwelling units in (a) places of 2,500 inhabitants or more incorporated as cities, boroughs, or villages, (b) incorporated towns of 2,500 inhabitants or more except in New England, New York, and Wisconsin, where "towns" are simply minor civil divisions of counties, (c) the densely settled urban fringe around cities of 50,000 inhabitants or more, including both incorporated and unincorporated

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areas, and (d) unincorporated places of 2,500 inhabitants or more outside any urban fringe. The remaining dwelling units were classified as rural.

In rural territory, farm residence is determined on the basis of number of acres in the place and total sales of farm products in 1959. An occupied dwelling unit is classified as a farm dwelling unit if it is located on a place of 10 or more acres from which sales of farm products amounted to \$50 or more in 1959, or on a place of less than 10 acres from which sales of farm products amounted to \$250 or more in 1959. Occupied units for which cash rent is paid are classified as nonfarm housing if the rent does not include any land used for farming (or ranching). The same definition of farm residence was used in the April 1960 Census.

In 1950, farm residence in rural territory was determined by the respondent's answer to the question, "Is this house on a farm (or ranch)?" In addition, the instructions to the enumerators specified that a house was to be classified as nonfarm if the occupants paid cash rent for the house and yard only.

LIVING QUARTERS

Living quarters in the Components of Inventory Change program in December 1969 were enumerated as dwelling units or quasi-unit quarters. Usually a dwelling unit is a house, apartment, or flat. However, it may be a trailer or a single room in a residential hotel. A structure intended primarily for business or other nonresidential use may also contain a dwelling unit; for example, the rooms in a warehouse where the watchman lives. Quasi-unit quarters (or quasi-units) are found in such places as institutions, dormitories, barracks, and rooming houses.

Dwelling unit.--In general, a dwelling unit is a group of rooms or a single room occupied or intended for occupancy as separate living quarters by a family or other group of persons living together or by a person living alone.

A dwelling unit is defined as (1) a group of rooms occupied or intended for occupancy as separate living quarters and having either separate cooking equipment or separate entrance; or (2) a single room occupied or intended for occupancy as separate quarters if (a) it has separate cooking equipment, (b) it is located in a regular apartment house, or (c) it constitutes the only living quarters in the structure.

Mobile trailers and tents, boats, and railroad cars are included in the inventory if they are occupied as dwelling units. They are excluded if they are vacant, used only for extra sleeping space or vacations, or used only for business. Trailers on a permanent foundation, whether occupied or vacant, are included in the inventory if they are occupied or intended for occupancy as separate living quarters (see "Trailer").

Both vacant and occupied dwelling units are included in the housing inventory. Vacant quarters are not included, however, if they are still under construction, being used for non-residential purposes, unfit for human habitation, condemned, or scheduled for demolition (see "Vacant dwelling unit").

Determination of dwelling unit.--The decision as to what constitutes a dwelling unit was made on the basis of the living arrangements of the occupants, and not on relationship. The enumerator was instructed to ask whether more than one family lived in the house (or apartment) and, if so, whether they lived and ate with the family or had separate quarters. If only one family lived in the house (or apartment) or if the additional persons lived and ate with the family, the enumerator regarded the house (or apartment) as one dwelling unit and no further probing was necessary. On the other hand, if the additional persons had separate quarters, the enumerator was to determine whether their quarters were separate dwelling units on the basis of either separate cooking equipment or two or more rooms and separate entrance. Quarters that did not meet

either criterion were not considered sufficiently separate to qualify as dwelling units; such quarters were combined into one dwelling unit (unless the combined quarters contained five or more lodgers, in which case they were considered quasi-unit quarters).

The enumerator was also instructed to ask whether there were other persons or families living in the building or elsewhere on the property and whether there were any vacant apartments on the property. Vacant quarters, to be considered dwelling units, also had to meet the criterion of separate cooking equipment or two or more rooms with separate entrance.

Separate cooking equipment is defined as (1) a regular range or stove, whether or not it is used, or (2) other equipment such as a hotplate or electrical appliance if (a) it is used regularly for the preparation of meals, or (b) most of the quarters in the structure have a regular stove, hotplate, or similar equipment. Equipment is for exclusive use if it is used only by the occupants of one unit, including lodgers or other unrelated persons living in the dwelling unit. Vacant units with no cooking equipment at the time of enumeration are considered to have cooking equipment if the last occupants had such equipment.

A dwelling unit has a separate entrance if the occupants can reach their quarters directly through an outside door or if they can reach their quarters through a common hall and need not pass through a room which is part of another unit.

Regular apartment house.--In a regular apartment house, each apartment is one dwelling unit if it is occupied or intended for occupancy by a single family or by a person living alone. Usually, such apartments have separate cooking equipment or consist of two or more rooms and a separate entrance; however, they may consist of only one room and lack separate cooking equipment.

Rooming house, boarding house.--If the quarters of any of the occupants in a rooming or boarding house have separate cooking equipment or consist of two or more rooms and separate entrance, such quarters are considered separate dwelling units. The remaining quarters are combined with the landlord's quarters or with each other if the landlord does not live in the structure. If the combined quarters contain four or fewer lodgers, they are classified as one dwelling unit; if the combined quarters contain five or more lodgers, they are classified as a quasi-unit. In a dormitory, sorority house, fraternity house, residence hall, monastery, convent, nurses' home, mission, and flophouse, all the living quarters are combined and classified as a quasi-unit regardless of the living arrangements of the occupants (see "Quasi-unit").

The distinction between rooming houses and regular apartment houses, and between rooming houses and hotels, was made by the enumerator presumably on the basis of local usage.

Hotel, motel.--In a hotel or motel where the majority of the accommodations are "permanent," each of the quarters is a dwelling unit if it has separate cooking equipment or consists of two or more rooms rented as a suite. All the remaining living quarters are combined and classified as a quasi-unit. In a "transient" hotel or motel, all the living quarters are combined and classified as a quasi-unit regardless of the living arrangements of the occupants. A hotel or motel is considered "permanent" if more than half the rooms, suites, or other living accommodations are occupied or reserved for occupancy by guests who seek lodging for a period of time (usually a month or more) and who are as a rule granted reductions from the daily or weekly rates (see "Quasi-unit").

Institution, general hospital.--Family quarters of staff personnel are separate dwelling units if they are located in a building containing only family quarters for staff personnel. All other living quarters are considered a quasi-unit (see "Quasi-unit").

Comparability with 1950 Census.--The definition of "dwelling unit" used in the December 1959 survey is the same as that used in the 1950 Census.

Comparability with April 1960 Census.--In the April enumeration of the 1960 Census of Housing, the unit of enumeration was the housing unit. Although the definition of "housing unit" in 1960 is essentially similar to that of "dwelling unit" in the December 1959 survey, the housing unit definition was designed to encompass all private living quarters, whereas the dwelling unit definition did not cover all private living accommodations. (The "dwelling unit" concept was retained for the December 1959 survey to permit unit-by-unit comparison with 1950.) In the April 1960 Census, a house, an apartment or other group of rooms, or a single room is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters, that is, when the occupants do not live and eat with any other persons in the structure and there is either (1) direct access from the outside or through a common hall, or (2) a kitchen or cooking equipment for the exclusive use of the occupants of the quarters.

The main difference between dwelling units and housing units is in the treatment of one-room quarters. In the April 1960 Census, separate living quarters consisting of one room without separate cooking equipment qualify as a housing unit if the room has direct access whether in an apartment house, rooming house, or house converted to apartment use. In hotels in 1960, a single room qualifies as a housing unit if occupied by a usual resident (i.e., a person who considers the hotel his usual place of residence or a person who has no usual place of residence elsewhere); a vacant room (including quarters temporarily occupied by a nonresident) qualifies as a housing unit only if 75 percent or more of the accommodations in the hotel are occupied by usual residents. In the December 1959 survey, separate living quarters consisting of one room without cooking equipment qualify as a dwelling unit only when located in a regular apartment house or when the room constitutes the only living quarters in the structure. In hotels in 1959, occupied and vacant quarters consisting of one room are classified as dwelling units only if they have separate cooking equipment and if they are in a permanent hotel.

The evidence thus far suggests that the use of the dwelling unit concept in the December 1959 survey instead of the housing unit concept as in the April 1960 Census has relatively little effect on the counts for large areas and for the Nation. For the United States, the estimate of the number of dwelling units from the December 1959 sample survey is 58,468,000 and the count of housing units from the complete enumeration in the April 1960 Census is 58,326,000. Any effect which the change in concept may have on comparability can be expected to be greatest in statistics for metropolitan areas, and particularly for certain tracts and blocks within the areas; living quarters classified as housing units but which would not be classified as dwelling units tend to be clustered in tracts and blocks where many persons live separately in single rooms in hotels, rooming houses, and other light housekeeping quarters. For the 17 metropolitan areas as a whole (those areas for which separate data are published from the 1959 survey), the count of housing units from the April 1960 enumeration is slightly higher than the count of dwelling units from the December 1959 survey; there is evidence that this difference exists even after allowance for sampling variability of the 1959 estimate and dates of enumeration. Furthermore, the estimate from the April 1960 enumeration of the number of 1- and 2-room renter-occupied housing units in the 17 areas is higher than the estimate of dwelling units in the comparable category from the December 1959 survey.

As indicated above, the housing unit concept is more inclusive than the dwelling unit concept. The effect of the conceptual difference alone, however, may not be revealed by the results of two separate surveys or censuses. Other factors which affect comparability between the December 1959 and the

April 1960 figures include the different enumeration procedures employed, the degree of overenumeration and underenumeration in both the survey and the census, the estimation procedure used for the 1959 results, and the sampling variability of the 1959 estimates. The results of the two enumerations are being evaluated in more detail to determine the relationship between the two concepts.

With respect to the enumeration of units as occupied or vacant, the results of the two enumerations for the United States as a whole are in close agreement. The December 1959 survey showed approximately 52,955,000 occupied dwelling units or 90.6 percent of the total units and 5,513,000 vacant dwelling units or 9.4 percent of the total. The April 1960 Census showed 53,024,000 occupied housing units or 90.9 percent of the total and 5,302,000 vacant housing units or 9.1 percent of the total. Similarly, the figures for owner-occupied and renter-occupied units as well as the subclasses of vacant units in the two enumerations are in fairly close agreement. In the detailed characteristics of occupied and vacant units, however, the results of the two enumerations may show some differences. (See also section on "Relation to April 1960 Census of Housing.")

Quasi-unit.--Occupied quarters which do not qualify as dwelling units are considered quasi-units in the December 1959 survey. Such quarters were called nondwelling-unit quarters in 1950. They are located most frequently in institutions, hospitals, nurses' homes, rooming and boarding houses, transient accommodations, military and other types of barracks, college dormitories, fraternity and sorority houses, convents, and monasteries. Quasi-units are also located in a house or apartment in which the living quarters contain five or more lodgers. The concept of quasi-units, or nondwelling-unit quarters, is similar to the concept of group quarters in the April 1960 Census.

Quarters classified as quasi-units in 1959 are not included in the 1959 housing inventory. However, quarters classified as dwelling units in 1950 but as quasi-units in 1959 are considered losses from the 1950 housing inventory; conversely, quarters which were classified as quasi-units (nondwelling-unit quarters) in 1950 and as dwelling units in 1959 are considered additions to the housing inventory.

COMPONENTS OF CHANGE

The housing inventory has been divided into components to reflect the several kinds of changes that occur. The term "components of change" refers to these individual parts, which are designed to explain (a) the source of the 1959 housing inventory, and (b) the disposition of the 1950 housing inventory.

In terms of the 1959 inventory, the components of change consist of:

- Units added through new construction
- Units added through other sources
- Units changed by conversion
- Units changed by merger
- Same units

In terms of the 1950 inventory, the components of change consist of:

- Units lost through demolition
- Units lost through other means
- Units changed by conversion
- Units changed by merger
- Same units

The above classifications were obtained largely by comparing each dwelling unit in the sample directly with the 1950 Census returns. Through the procedures used in this survey, it was possible to classify the component of change on the basis of the situation existing in 1959 and the situation reported in the 1950 Census records (see "Collection and processing of data"). In instances where the 1950 records were missing or the identification was incomplete, the enumerator determined the classification through inquiry of the present occupants or informed neighbors.

Same units.--Living quarters enumerated as one dwelling unit in 1959 are classified as "same" if the quarters existed as one and only one dwelling unit in 1950. Thus, "same" units are common to both the 1950 and 1959 inventories. Units which changed after 1950 but by 1959 had changed back to the 1950 status are also considered "same" units. For example, a 1950 dwelling unit converted into several units and later merged to one unit, or a dwelling unit changed to nonresidential use and later restored to its 1950 residential use are "same" units.

Changes in the characteristics of a dwelling unit since 1950 do not affect its classification as "same" if it was one dwelling unit in 1950 and in 1959. Examples of such changes in characteristics are: Finishing a bedroom in the attic, installing an extra bathroom, and enlarging the kitchen.

Units changed by conversion.--Conversion refers to the creation of two or more dwelling units from fewer units through structural alteration or change in use. Structural alteration includes such changes as adding a kitchen or installing partitions to form another dwelling unit. Change in use may result from a simple rearrangement in the space without structural alteration, such as locking a door which closes off one or more rooms to form a separate dwelling unit.

The term "changed by conversion" is applicable to both the 1950 and 1959 inventories. For example, one dwelling unit in the 1950 inventory which subsequently was converted to three dwelling units was counted as one unit changed by conversion for purposes of the 1950 statistics and as three units changed by conversion for purposes of the 1959 statistics. Thus, subtraction of the 1950 figure from the 1959 figure yields the net number of dwelling units added as a result of conversion. The number of conversions does not include units that had been converted at some point between 1950 and 1959 but had reverted to the 1950 status before the 1959 enumeration.

Units changed by merger.--Merger refers to the combining of two or more dwelling units into fewer units through structural alteration or change in use. Structural alteration includes such changes as the removal of partitions or the dismantling of kitchen equipment. Change in use may result from a simple rearrangement of space without structural alteration, such as unlocking a door which formerly separated two dwelling units. A change in use also occurs, for example, when a family occupies both floors of a house which formerly contained a dwelling unit on each floor.

The term "changed by merger" is applicable to both the 1950 and 1959 inventories. For example, two dwelling units in the 1950 inventory which subsequently were merged into one dwelling unit were counted as two units changed by merger for purposes of the 1950 statistics, and as one unit changed by merger for purposes of the 1959 statistics. Thus, subtraction of the 1950 figure from the 1959 figure yields the net number of dwelling units lost as a result of merger. As with conversions, units that had merged after 1950 and had been converted to their 1950 status before December 1959 are not included in the figures on mergers.

Units added through new construction.--Any dwelling unit built between April 1950 and December 1959 is classified as a unit added by "new construction." Dwelling units built in that period but removed from the housing inventory before December 1959 are not reflected in the figures in this report. Dwelling units built during the period but subsequently changed by conversion or merger are classified as new construction in terms of the number existing in December 1959. Vacant units under construction at the time of enumeration were enumerated only if construction had proceeded to the point that all the exterior windows and doors were installed and final usable floors were in place.

Statistics in this report on the number of new construction units differ from the statistics on the number of units built since 1950 according to the data on year built from the April 1960 Census (in 1960 Census of Housing, Volume I, States

and Small Areas, and Volume II, Metropolitan Housing). According to the Components of Inventory Change survey, approximately 15,003,000 dwelling units existing in December 1959 were built after the 1950 Census (in the period April 1950 to December 1959); according to the April 1960 Census, approximately 16,046,000 housing units existing in April 1960 were built in 1950 or later (in the period January 1950 to March 1960). The December 1959 estimate covers a period of 9 3/4 years, and the April 1960 Census estimate covers 10 1/4 years. Furthermore, both estimates are based on samples of units and are subject to sampling variability (the sampling variability of the 1960 estimate, which is based on a 25-percent sample, being relatively very small). The difference remaining after an adjustment for the time period is within sampling variability (at the 1-standard-error level). Some of the difference may be attributable also to the difference in enumeration procedures. In the December 1959 survey, units are classified as "new construction" if the reported date of construction is later than April 1950 and if the address of the unit does not appear in the 1950 Census records; in the April 1960 Census, information on year built is based on the respondent's memory or estimate of the date of construction. The use of the dwelling unit concept in the December 1959 survey and the housing unit concept in the April 1960 Census is still another factor; however, it is believed that the effect of this difference on the estimate of new construction is insignificant.

Units added through other sources.--Any dwelling unit added to the inventory between April 1950 and December 1959 which is not specifically covered under the heading of new construction or conversion is classified as a unit added through other sources. This component includes the following types of additions:

1. Units created from living quarters classified as nondwelling-unit quarters, or quasi-units, in 1950; for example, a one-room dwelling unit created from a sleeping room in a rooming house through the installation of cooking equipment.

2. Units created from nonresidential space such as a store, garage, or barn.

3. Units moved to site during the period April 1950 to December 1959. Such units, if moved within the same area, do not necessarily result in a net addition to the total inventory since they presumably represent units lost in the place from which they were moved. A mobile trailer, whether on a different site or the same site as in 1950, is a net addition if occupied as a dwelling unit in 1959 but not in 1950.

The additions from other sources do not include units which were added to the inventory after April 1950 and lost or withdrawn from the inventory before December 1959.

Units lost through demolition.--A dwelling unit which existed in April 1950 and which was demolished on the initiative of a public agency or as a result of action on the part of the owner is classified as a unit lost through demolition.

Units lost through other means.--Any dwelling unit which existed in April 1950 and which was lost to the housing inventory through means other than demolition or merger is classified as a unit lost through other means. This component includes the following types of losses:

1. Units lost by change to quasi-units; for example, a one-room dwelling unit changed to a sleeping room by the removal of cooking equipment, or a dwelling unit changed to a quasi-unit because five lodgers were added to the household. (The term "quasi-unit" in 1959 is comparable to "nondwelling-unit" quarters in 1950.)

2. Vacant units lost from the inventory because they are unfit for human habitation (see "Vacant dwelling unit").

3. Vacant units lost from the inventory because they are scheduled for demolition or because they are condemned for reasons of health or safety so that further occupancy is prohibited.

4. Units lost by change to nonresidential use.

5. Units moved from site since April 1950. Such units, if moved within the same area, do not necessarily result in a net loss from the total inventory since they presumably represent units added in the place to which they were moved. A mobile trailer, whether on a different site or the same site as in 1950, resulted in a net loss if occupied as a dwelling unit in 1950 but not in 1959.

6. Units destroyed by fire, flood, or other cause. Because of the difficulty of ascertaining the actual cause of the disappearance of a unit, due to the time period involved and the difficulty of locating a reliable respondent, it is possible that some units recorded as destroyed by fire, flood, or other cause had actually been demolished, and vice versa.

Units lost through other means do not include units which were lost during the period but restored as dwelling units by December 1959. For example, losses do not include 1950 dwelling units that were changed to nonresidential use and back to dwelling units by December 1959, or 1950 dwelling units that became vacant and unfit for human habitation and then rehabilitated by December 1959.

OCCUPANCY CHARACTERISTICS

Occupied dwelling unit.--A dwelling unit is "occupied" if it is the usual place of residence of the person or group of persons living in it at the time of enumeration. Included are units occupied by persons who are only temporarily absent, such as persons on vacation. Units occupied by persons with no usual place of residence are also considered "occupied." For example, a unit occupied by migratory workers who have no usual residence elsewhere is considered occupied; however, if the migrants have a residence elsewhere, the unit in which they are temporarily living is classified as vacant.

This same definition for classifying a unit as occupied was used in the April 1960 Census and in the 1950 Census.

Vacant dwelling unit.--A dwelling unit is "vacant" if no persons are living in it at the time of enumeration. However, if its occupants are only temporarily absent, the unit is considered occupied. Units temporarily occupied entirely by persons having a usual place of residence elsewhere are classified as vacant (the unit at their usual residence is considered occupied). A vacant unit may be furnished or unfurnished; it may be offered for rent or sale; it may have been rented or sold but the new occupants have not moved in; or it may be held off the market for the owner's occasional or future use, for speculation, or for other reasons.

Newly constructed vacant units are included in the inventory if construction has reached the point that all the exterior windows and doors are installed and the final usable floors are in place. If construction had not reached this point, the unit was not enumerated.

Dilapidated vacant units were enumerated as dwelling units provided they were still usable as living quarters. Vacant quarters were not enumerated if they were unfit for human habitation. Vacant quarters are defined as unfit for human habitation if, through deterioration or vandalism, most of the doors and windows are missing and the floors are unsafe. If doors and windows are boarded up or stored to keep them from being destroyed, they are not to be considered missing. In terms of the 1950 inventory, dwelling units which became vacant and unfit for human habitation are reported as losses from the 1950 inventory. Conversely, vacant quarters which were unfit for human habitation in 1950 but which were made usable as living quarters by 1959 are reported as units added to the inventory.

Vacant quarters are excluded from the housing inventory if there is positive evidence (a sign, notice, or mark on the house or in the block) that the unit is to be demolished. Vacant quarters condemned for reasons of health or safety so that further occupancy is prohibited are likewise excluded from the inventory. Also excluded are vacant mobile trailers and quarters used for commercial or business purposes or used for the

storage of hay, machinery, business supplies and the like, unless the use is only temporary, in which case they were enumerated as dwelling units. Quarters of these types, which were dwelling units in 1950, are reported as losses from the 1950 inventory; they are reported as units added to the inventory when the reverse was true.

With few exceptions, these same general instructions were used in the April 1960 Census and in the 1950 Census. In 1959 and 1960, however, the instructions for enumerating certain vacant units were more specific than in 1950, particularly the instructions regarding units to be demolished, units unfit for human habitation, and units being used for nonresidential purposes.

Vacancy status.--Available vacant units are units which are for year-round occupancy, are not dilapidated, and are offered for rent or for sale. Units available for sale only are the available vacant units which are offered for sale only; they exclude units offered "for sale or rent." Units available for rent are the available vacant units which are offered for rent and those offered for rent or sale at the same time. Other vacant units comprise the remaining vacant dwelling units. They comprise dilapidated units, seasonal units, units rented or sold and awaiting occupancy, units held for occasional use, and units held off the market for other reasons. Year-round dwelling units are units which are usually occupied or intended for occupancy at any time of the year. Seasonal units are intended for occupancy during only a season of the year.

The same definition of vacancy status was used in the April 1960 Census (except that "not dilapidated" units were classified as "sound" or "deteriorating" in 1960). Comparability may be affected in some areas, however, because of the use of two categories for condition in 1959 compared with three in 1960, and the use of the dwelling unit concept in 1959 compared with the housing unit concept in 1960.

The definitions used in the 1950 Census also were the same as those used in the December 1959 survey. Available vacant units were identified as "nonseasonal not dilapidated" units in 1950; and 1950 "nonresident" units (units temporarily occupied by persons with usual place of residence elsewhere) are included in the category "other" vacant units.

Color.--The occupants of dwelling units are classified according to the color of the head of the household into two groups, white and nonwhite. The color group designated "nonwhite" consists of such races or ethnic groups as Negro, American Indian, Japanese, Chinese, Filipino, Korean, Asian Indian, and Malayan. Persons of Mexican birth or ancestry who are not definitely of Indian or other nonwhite race are classified as white. Persons of mixed racial parentage are classified as nonwhite. The same classification was used in the April 1960 Census and in the 1950 Census.

The concept of race, as it has been used by the Bureau of the Census, is derived from that which is commonly accepted by the general public. In the December 1959 survey and in the 1950 Census, the classification was obtained in most cases by the enumerator's observation, whereas in the April 1960 Census, it was possible for members of the household to classify themselves. The use of self-enumeration in April 1960 may have affected the accuracy of the data on color compared with other censuses or surveys.

Persons.--All persons enumerated as members of the household were counted in determining the number of persons who occupied the dwelling unit. These persons include not only occupants related to the head but also any lodgers, foster children, wards, and resident employees who shared the living quarters of the household head.

The median number of persons for occupied dwelling units is the theoretical value which divides the distribution into two equal parts--one-half the units having more persons and one-half having fewer persons than the median. In the computation of the median, a continuous distribution was assumed,

with the whole number of persons as the midpoint of the class interval. For example, when the median was in the 3-person group, the lower and upper limits were assumed to be 2.5 and 3.5 persons, respectively.

The same concept was applied in the April 1960 Census and in the 1950 Census.

Persons per room.--The number of persons per room was computed for each occupied dwelling unit by dividing the number of persons by the number of rooms in the unit. The tabulation form contained terminal categories of "10 or more" rooms and "10 or more" persons. For purposes of the computation, each of the terminal categories was given a mean value of 11. Essentially the same procedure was used for the 1960 and 1950 Censuses.

Tenure.--A dwelling 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 need not be the head of the household. A cooperative apartment unit is "owner occupied" only if the owner lives in it.

All other occupied units are classified as "renter occupied," including units rented for cash as well as units occupied without payment of cash rent. Units rented for cash are units for which any money rent is paid or contracted for. Such rent is commonly paid by the occupants but may be paid by persons not living in the unit--for example, a welfare agency. Units for which no cash rent is paid include units provided by relatives not living in the unit and occupied without rental payment, units provided in exchange for services rendered, and units occupied by a tenant farmer or sharecropper who does not pay any cash rent. "No cash rent" appears as a category in the rent tabulations.

The same definition of tenure was used in the April 1960 Census and in the 1950 Census.

Owner of unit.--The owner of the unit refers to some member of the household who lives in the unit and is the owner or co-owner of the dwelling unit. The owner may be the head or his wife, some other relative of the head, or a nonrelative of the head. Units co-owned by two or more household members are tabulated in the category "head or wife" if either the head or wife is a co-owner. If neither the head nor his wife is a co-owner, but at least one of the co-owners is related to the head (by blood, marriage, or adoption), the unit is tabulated in the category "other relative of head."

The "age of owner" is the age of the household member who owns the unit. If the head and wife own the unit jointly, the unit is tabulated according to the age of the head.

Although information on tenure was obtained in the April 1960 Census and in the 1950 Census, no information was obtained on the identity of the owner of the unit.

Year moved into unit.--Data on year moved into unit are based on information reported for the head of the household. The question refers to the year of latest move. Thus, if the head moved back into a unit he had previously occupied, the year he moved into his present unit was to be reported.

The year the head moves is not necessarily the same year other members of the household move, although in the great majority of cases the entire household moves at the same time. The statistics roughly reflect turnover in occupancy of units but do not indicate the total number of changes in occupancy that have occurred in a given period.

The same concept of year moved into unit was used in the April 1960 Census but no information on year moved was obtained in the 1950 Census.

STRUCTURAL CHARACTERISTICS

Rooms.--The number of rooms is the count of whole rooms used for living purposes, such as living rooms, dining rooms, bedrooms, kitchens, finished attic or basement rooms, recreation rooms, lodgers' rooms, and rooms used for offices by a person

living in the unit. Not considered as rooms are bathrooms; halls, foyers, or vestibules; closets; alcoves; pantries; strip or pullman kitchens; laundry or furnace rooms; unfinished attics, basements, and other space used for storage; porches, unless they are permanently enclosed and suitable for year-round use; and offices used only by persons not living in the unit. A partially divided room, such as a dinette next to a kitchen or living room, is considered a separate room if there is a partition from floor to ceiling. If a room is shared by occupants of more than one unit, it is included with the unit from which it is most easily reached. The same concept was used in the April 1960 Census and in the 1950 Census.

The median number of rooms is the theoretical value which divides the distribution of units into two equal parts--one-half the units having more rooms and one-half having fewer rooms than the median. The median was computed in the same manner as the median number of persons, and in tables 2 and 3 the median was computed on the basis of more detailed intervals than are shown in the table.

Units in structure.--In determining the number of units in the structure, the enumerator was instructed to count both occupied and vacant dwelling units, but not business units or quasi-units. A structure is defined as a separate building that either has open space on all four sides, or is separated from other structures by dividing walls that extend from ground to roof. For row houses, double houses, or houses attached to nonresidential structures, each house is a separate structure if the dividing or common wall goes from ground to roof. In apartment developments or in housing developments of the village or garden type, each building with open space on all sides is a separate structure. Statistics are presented in terms of number of dwelling units rather than number of residential structures.

Essentially the same concept was used in the April 1960 Census. Comparability may be affected, however, by the difference in the concept of dwelling unit in 1959 and housing unit in April 1960.

The 1959 data are not entirely comparable with data from the 1950 Census for units in 1- and 2-unit structures. For some of the 1950 data, units in detached and attached structures were shown separately for 1- and 2-unit structures, but those in semidetached structures containing 1 or 2 units were combined into one category. For table 1, units classified as "1 and 2 dwelling unit, semidetached" in 1950 were combined with "1 dwelling unit, detached" and "1 dwelling unit, attached" and shown as "1 unit" in the table. The 1950 figure in table 1 for "1 unit" in structure, therefore, includes units in semidetached structures having 2 units in the structure; in most areas, this number is believed to be too small to affect comparability of the data. (A semidetached structure was defined in 1950 as one of two adjoining residential structures, each with open space on the remaining three sides; such a structure containing 1 or 2 dwelling units was included in the category "1 and 2 dwelling unit, semidetached.") In table 3, however, the 1950 category "1 unit" consists only of units in 1-unit structures.

Trailer.--The 1959 inventory includes trailers which are used as separate living quarters. Mobile trailers are included only if occupied as separate living quarters. A trailer is "mobile" if it rests on wheels or on a temporary foundation, such as blocks or posts. Trailers on a permanent foundation are included if occupied as separate living quarters, or vacant and intended for occupancy as separate living quarters. A trailer is "on a permanent foundation" if it is mounted on a regular foundation of brick, stone, concrete, etc. When trailers are not shown as a separate category in a table, they are included with units in "1 unit" structures.

In 1950, the same types of trailers were included in the housing inventory as in 1959. In the April 1960 Census, however, only trailers which were occupied as separate living

quarters were included in the inventory; vacant trailers, whether mobile or on a permanent foundation, were excluded. In all three enumerations, when one or more rooms are added to a trailer, it is no longer classified as a trailer and is treated the same as a house, apartment, or flat.

Under the subject "Units in structure" in table 1, the category "trailer" for 1959 designates all trailers that were in the housing inventory--the occupied mobile trailers and the occupied and vacant trailers on a permanent foundation. For 1950, the category comprises only occupied mobile trailers; permanent trailers were classified as "house, apartment, or flat" and thus were included in the category "1 unit" in structure. In the 1960 results, the category "trailer" designates occupied mobile trailers and occupied trailers on a permanent foundation.

Year structure built.--"Year built" refers to the date the original construction of the structure was completed, not to any later remodeling, addition, or conversion. For trailers, the model year was assumed to be the year built.

The figures on the number of units built during a given period relate to the number of units in existence at the time of enumeration. The figures reflect the number of units constructed during a given period plus the number created by conversions in structures originally built during that period, minus the number lost in structures built during the period. Losses occur through demolition, fire, flood, disaster; change to nonresidential use; or merger to fewer dwelling units.

Data on year built are more susceptible to errors of response and nonreporting than data on many of the other items. In most cases, the information was given according to memory or estimates of the occupants of the structure or of other persons who had lived in the neighborhood a long time. Data on year built are available from the April 1960 Census and the 1950 Census. While the definitions were the same in the three enumerations, comparability of the data may be affected by relatively large reporting errors. The data from the December 1959 survey, particularly for the period 1950 to 1959, may differ from data derived from other sources because of the special procedures employed in the Components of Inventory Change program (see discussion on "new construction" in section on "Components of change").

CONDITION AND PLUMBING FACILITIES

Both the condition of a dwelling unit and the type of plumbing facilities are considered measures of the quality of housing. Categories representing various levels of housing quality have been established by presenting the items in combination.

To measure condition, the enumerator classified each dwelling unit in one of two categories: Not dilapidated or dilapidated. The plumbing facilities that are combined with condition are: Water supply, toilet facilities, and bathing facilities.

Condition.--The enumerator determined the condition of the dwelling unit by observation, on the basis of specified criteria related to the extent or degree of visible defects. The types of defects the enumerator was to look for are associated with weather tightness, extent of disrepair, hazards to the physical safety of the occupants, and inadequate or makeshift construction. These are signs of other structural defects which may be hidden. Defects which would be revealed only by a more careful inspection than is possible during a census, such as the presence of dampness or infestation, inadequate wiring, and rotted beams, are not included in the criteria for determining the condition of a unit.

Dilapidated housing does not provide safe and adequate shelter and in its present condition endangers the health, safety, or well-being of the occupants. Such housing has (a)

one or more critical defects; or (b) has a combination of minor defects in sufficient number or extent to require considerable repair or rebuilding; or (c) is of inadequate original construction. The defects are either so critical or so widespread that the dwelling unit is below the generally accepted minimum standard for housing and should be torn down, extensively repaired, or rebuilt.

A critical defect is serious enough in itself to warrant classifying a unit as dilapidated. Examples of critical defects are: Holes, open cracks, or rotted, loose, or missing material (clapboard siding, shingles, bricks, concrete, tile, plaster, or floorboards) over a considerable area of the foundation, outside walls, roof, chimney, or inside walls, floors, or ceilings; substantial sagging of floors, walls, or roof; and extensive damage by storm, fire, or flood.

To be classified as dilapidated on the basis of minor defects, a dwelling unit must have such defects in sufficient number or extent that it no longer provides safe and adequate shelter. No set number of minor defects is required. Examples of minor defects are: Holes, open cracks, rotted, loose, or missing materials in the foundation, walls, roof, floors, or ceilings but not over a considerable area; shaky or unsafe porch, steps, or railings; several broken or missing window panes; some rotted or loose window frames or sashes that are no longer rainproof or windproof; broken or loose stair treads, or broken, loose, or missing risers, balusters, or railings of inside or outside stairs; deep wear on doorsills, doorframes, outside or inside steps or floors; and damaged, unsafe, or makeshift chimney such as a stovepipe or other uninsulated pipe leading directly from the stove to the outside through a hole in the roof, wall, or window. Such defects are signs of neglect which lead to serious structural deterioration or damage if not corrected.

Inadequate original construction includes: Shacks, huts, or tents; structures with makeshift walls or roofs, or built of packing boxes, scrap lumber or tin; structures lacking foundations (walls rest directly on the ground); structures with dirt floors; and cellars, sheds, barns, garages, or other places not originally intended for living quarters and inadequately converted to such use. Such units are classified as dilapidated.

The enumerator was instructed to judge each unit on the basis of its own characteristics, regardless of the neighborhood, age of the structure, or the race or color of the occupants. He was cautioned, for example, that although lack of paint is only a slight defect, this and other signs of neglect are warnings to look closely for more serious defects. Also, exterior covering may improve the appearance of a structure but not its condition, and the sturdiness of brick or other masonry walls can be misleading if there are defects in other parts of the structure.

The enumerator was provided with detailed oral and written instructions and with visual aids. A filmstrip of photographs depicted various types of defects and a recorded narrative explained how to determine the classification of condition on the basis of these defects. Nevertheless, it was not possible to achieve uniform results in applying the criteria for determining the condition of a unit. Data on condition for large areas, which are based on the work of a number of enumerators, tend to have a smaller margin of relative error than data for small areas, which depend on the work of only a few enumerators.

The concept, definition, and training materials used in the December 1959 survey were the same as those used in the 1950 Census. In the April 1960 Census, three levels of condition are reported: Sound, deteriorating, and dilapidated. The 1959 "dilapidated" and the 1960 "dilapidated" are considered comparable categories since the same basic concept of dilapidation was used; and the 1959 category "not dilapidated" is considered comparable with the 1960 categories "sound" and "deteriorating" combined. It is possible, however, that the change in categories introduced an element of difference between the 1959 and 1960 statistics.

Plumbing facilities.--The category "with all plumbing facilities" consists of units which have piped hot and cold water inside the structure, and flush toilet and bathtub (or shower) inside the structure for the exclusive use of the occupants of the unit.

Units "lacking only hot water" have all the facilities except hot water. Units "lacking other plumbing facilities" may (or may not) have hot water but lack one or more of the other specified facilities. Also included in this category are units having no piped water inside the structure and units whose occupants share toilet or bathing facilities with the occupants of another dwelling unit. The combination of "lacking only hot water" and "lacking other plumbing facilities" is presented as "lacking some or all facilities" in some of the tables.

Facilities are "for exclusive use" if they are used only by the occupants of the one dwelling unit, including lodgers or other unrelated persons living in the dwelling unit. Facilities are considered "inside the structure" if they are located in the same structure as the dwelling unit; they may be located within the dwelling unit itself, or in a hallway, basement, or room used by occupants of several units. A unit has "hot" water whether hot water is available the year round or only part of the time; for example, it may be supplied only at certain times of the day, week, or year.

The same concepts were used in the April 1960 Census and in the 1950 Census. The 1959 category "with all plumbing facilities" is equivalent to the 1950 "with private toilet and bath and hot running water;" the 1959 "lacking only hot water" is equivalent to the 1950 "with private toilet and bath, and only cold water;" and the 1959 "lacking other plumbing facilities" is equivalent to the 1950 combination of "with running water, lacking private toilet or bath" and "no running water." (In table 1, a minor adjustment was made in the tabulated 1950 data for Alaska since units with "hot running water" were not separately identified.)

Bathroom.--A dwelling unit has a complete bathroom if it has a flush toilet and bathtub (or shower) for the exclusive use of the occupants of the unit and also has piped hot water. The facilities must be located inside the structure but need not be in the same room. Units with two or more complete bathrooms and units with a partial bathroom in addition to a complete bathroom are included in the category "more than 1." Units which lack one or more of the specified facilities are included in the category "shared or none" together with units which share bathroom facilities.

This same concept was used in the April 1960 Census. In 1950, however, no data on the number of bathrooms were provided although data were presented on the number of units with both private flush toilet and bathtub (or shower) and hot running water.

FINANCIAL CHARACTERISTICS

Value.--Value is the respondent's estimate of how much the property would sell for on the current market. Value data are restricted to owner-occupied units having only one dwelling unit in the property and no business. A business for this purpose is defined as a clearly recognizable commercial establishment such as a restaurant, store, or filling station. Units in multiunit structures and trailers were excluded from the tabulations; and in rural territory units on farms and all units on places of 10 acres or more (whether farm or nonfarm) also were excluded. The values of such units are not provided because of variation in the use and size of the property.

A property generally consists of the house and the land on which it stands. The estimated value of the entire property, including the land, was to be reported, even if the occupant owned the house but not the land, or the property was owned jointly with another owner.

The median value of dwelling units is the theoretical value which divides the distribution into two equal parts--one-half

the cases falling below this value and one-half the cases exceeding this value. In the computation of the median, the lower limit of a class interval was assumed to stand at the beginning of the value group and the upper limit at the beginning of the successive value group. Medians were rounded to the nearest hundred dollars. In some instances, the medians were computed on the basis of more detailed tabulation groups than are shown in the tables.

The definition of value and the restriction on the type of units for which value data are presented are the same as for the April 1960 Census. In 1950 also, these same concepts were used with a minor exception--the 1950 data excluded values for farm units in rural areas but included nonfarm units on places of 10 acres or more. (The 1950 data for Hawaii are restricted to units whose occupants owned both the unit and the land, and farm units are included.)

Contract rent.--Contract rent is the monthly rent agreed upon regardless of any furnishings, utilities, or services that may be included. If the rent includes payment for a business unit or additional dwelling units, an estimate of the rent for the dwelling unit being enumerated is reported. Rent paid by lodgers or roomers is disregarded if they are members of the household. The data exclude rents for farm units in rural territory.

The median rent is the theoretical rent which divides the distribution into two equal parts--one-half the cases falling below this rent and one-half the cases exceeding this rent. Renter-occupied units for which "no cash rent" is paid are excluded from the computation of the median. Medians were rounded to the nearest whole dollar.

These same concepts were used in the April 1960 Census, as well as in the 1950 Census. (The 1950 rent data for Hawaii include farm units.)

Gross rent.--The computed rent termed "gross rent" is the contract rent plus the average monthly cost of utilities (water, electricity, gas) and fuels such as wood, coal, and oil if these items are paid for by the renter. Thus, gross rent eliminates differentials which result from varying practices with respect to the inclusion of utilities and fuel as part of the rental payment. If the utility or fuel bill covered a business unit or additional dwelling units, an amount was to be reported for the one dwelling unit being enumerated. Rent data exclude rents for farm units in rural territory.

The median gross rent was computed in the same manner as the median contract rent. In the computation, the lower limit of a class interval was assumed to stand at the beginning of the rent group and the upper limit at the beginning of the successive rent group. In some instances, the median was computed on the basis of more detailed tabulation groups than are shown in the tables. Medians were rounded to the nearest whole dollar. Renter-occupied units for which "no cash rent" is paid are shown separately in the tables and are excluded from the computation of the median.

The same concept and restriction on the type of units for which gross rent is presented were used for the April 1960 Census. For the 1950 data in table 3, this same procedure was followed. For the 1950 data in table 1, however, an additional adjustment was made to gross rent; if the use of furniture was included in the contract rent, the reported estimated rent of the unit without furniture was used in the computation. (No 1950 data on gross rent are available for Alaska and Hawaii.)

HOUSEHOLD CHARACTERISTICS

Household characteristics are based on information reported for each member of the household. Each person was listed by name, and information was recorded on age and relationship to head. Information for similar items, as well as marital status, was recorded for each household member in the 1960 and 1950 Censuses of Population.

Household.--A household consists of all the persons who occupy a dwelling unit. By definition, therefore, the count of occupied dwelling units would be the same as the count of households.

Head of household.--The head of the household is the person considered to be the head by the household members. However, if a married woman living with her husband is reported as the head, her husband is classified as the head for the purpose of census tabulations.

Household composition.--Each household in the group "male head, wife present, no nonrelatives" consists of the head, his wife, and other persons, if any, all of whom are related to him. A household was classified in this category if both the husband and wife were reported as members of the household even though one or the other was temporarily absent on business or vacation, visiting, in a hospital, etc., at the time of the enumeration. The category "other male head" includes male head, wife present, with nonrelatives living with them; male head who is married, but with wife absent because of separation or other reason where husband and wife maintain separate residences for several months or more; and male head who is widowed, divorced, or single. "Female head" comprises all female heads regardless of their marital status. Included are female heads without a spouse and female heads whose husbands are living away from their families, as for example, husbands in the Armed Forces living on military installations.

Comparable data on household composition are available from the April 1960 Census in 1960 Census of Housing, Volume II, Metropolitan Housing. The categories differ, however, in that one-person households in the 1960 report are shown separately and are not included in the categories "other male head" and "female head."

Categories similar to the 1959 categories are available from the 1950 Census in 1950 Census of Housing, Volume II, Nonfarm Housing Characteristics, and Volume III, Farm Housing Characteristics. For the 1950 data in table 1, a ratio estimation procedure was applied to the sample data as published to obtain improved estimates. (The 1950 statistics exclude figures for Alaska and Hawaii.)

Presence of nonrelatives.--A nonrelative of the head is any member of the household who is not related to the household head by blood, marriage, or adoption. Lodgers (roomers, partners, wards, and foster children) and resident employees are included in this category.

Similar data are available from the April 1960 Census in 1960 Census of Housing, Volume II, Metropolitan Housing, under "Type of household." Results of the 1950 Census also are available under "Type of household" in 1950 Census of Housing, Volume II, Nonfarm Housing Characteristics, and Volume III, Farm Housing Characteristics. For the 1950 data in table 1, a ratio estimation procedure was applied to the sample data as published to obtain improved estimates. (The 1950 statistics exclude figures for Alaska and Hawaii.)

Own children.--An "own child" is defined as a son, daughter, stepchild, or adopted child of the head. The category "under 6 years only" relates to households with own children 5 years old and younger and no own children 6 to 17 years inclusive. Similarly, the category "6 to 17 years only" relates to households with own children 6 to 17 years and no own children under 6. Units in the category "both age groups" have at least one own child in each of the two age groups.

Some data on own children are presented in the population reports of the 1960 and 1950 Censuses of Population.

Persons 65 years and over.--All persons, including the head, who are members of the household and are 65 years old and over are included in the count of persons 65 years and over. The statistics are presented in terms of the number of occupied units having 0, 1, 2, or 3 or more such persons. Though the total number of persons 65 years old and over cannot be derived from the distribution, the number can probably be closely estimated; units with 3 or more persons 65 and over will seldom have more than 3 such persons.

Selected data on characteristics of housing occupied by persons 60 years old and over are available from the April 1960 Census in 1960 Census of Housing, Volume VII, Housing of Senior Citizens. No comparable data are available from the 1950 Census.

COLLECTION AND PROCESSING OF DATA

The collection and processing of data in the December 1959 Components of Inventory Change survey differed in several important respects from the procedures used in other parts of the 1960 Census program and in the 1950 Census. A brief description of the procedures used in the December 1959 survey is given below. A detailed description of the forms and procedures used in the collection of the data is given in a report entitled Survey of Components of Change and Residential Finance of the United States Census of Housing, 1960: Principal Data-Collection Forms and Procedures. Further detail on procedures is provided in a report entitled Eighteenth Decennial Census: Procedural History.

COLLECTION OF DATA

Survey design.--The December 1959 survey was designed to utilize, whenever possible, the sampling materials and information from the 1956 National Housing Inventory (NHI). In the NHI and in the December 1959 survey, data were collected for dwelling units located in a sample of clusters or land area segments representative of various geographic areas of the United States. The 1959 sample consisted, in large part, of segments that were used also in the 1956 survey. As described in "Sample design," the 1959 survey used additional segments to reflect new construction and boundary changes.

Timing.--December 1959 is the survey date for the Components of Inventory Change survey, and the statistics may be

regarded as applying to that date. Some of the enumeration, however, began in late October 1959 and some extended into early 1960. Information reported by the enumerator reflected the situation at the time of enumeration.

For purposes of the estimation procedure for new construction units, which required some data from the census returns, a second visit was made to the segments. In this visit, the enumerator determined the number of housing units in the segment as enumerated by the April 1960 Census enumerator. Most of these visits were made in June and July 1960.

Survey techniques.--Five basic survey techniques were used to obtain measures of the number of dwelling units by components of change.

In segments which were not in the 1956 NHI, the estimates depended primarily on the first two techniques described below. The techniques for these segments are described first, although such segments constituted only a small part of the entire sample.

1. This technique was designed to obtain estimates of new construction units and other additions, conversions, mergers, certain types of losses, and units which were the "same" in 1950 and 1959. In this procedure, the enumerator was supplied with a map of the sample segment and the 1950 Census records for the enumeration district⁴ containing the segment. The

⁴ An enumeration district is an area assigned to one enumerator in the decennial census for purposes of canvassing; in most cases, an enumeration district contains approximately 250 dwelling units.

enumerator listed each dwelling unit existing in the segment at the time of enumeration in 1959 and compared it directly with the 1950 Census returns. On the basis of this comparison and information supplied by the respondent, the enumerator reported the status of each unit in relation to the situation in 1950. When recording each 1959 unit, the enumerator accounted for all dwelling units that existed in the structure in 1950 (or part of a structure when the segment consisted of only part of a structure, e.g., one floor of an apartment house). Thus, losses were reported in the "segment" sample for structures which contained at least one dwelling unit in 1959 (see technique 2 for losses of entire structures). In some instances, the 1950 Census records were not available or the enumerator could not match the units because of incomplete identification given in 1950; in these cases, information as to whether any change had occurred was obtained by direct inquiry of the present occupants or informed neighbors.

2. The second technique measured losses of units in situations where all the 1950 dwelling units in the structure were lost to the housing inventory. A sample of addresses in clusters of three was selected from the 1950 Census records. The enumerator located these specific addresses and, if the entire structure had been demolished, had changed to nonresidential use, had become vacant and unfit for human habitation, or was otherwise lost to the inventory since 1950, the enumerator reported as a loss each unit that existed in the structure in 1950.

For the sample segments in Alaska and Hawaii, which were not included in the 1956 NHI, techniques 1 and 2 were applied. In the "new construction" segments in the rest of the United States, which also were not in the NHI, technique 1 was applied except that measures of losses were estimated from the segments in the NHI sample (see techniques 4 and 5).

The bulk of the sample for the United States, and regions, consisted of segments that were also in the NHI. For these segments, techniques 3, 4, and 5 were used.

3. The third technique provided estimates of new construction and other additions, conversions, mergers, and "same" units by utilizing segments that had been enumerated in the 1956 NHI. Information reported in 1956, for the period 1950 to 1956, was brought up to date so that the change for the entire period 1950 to 1959 could be determined. The enumerator was supplied with a map of the sample segments and the 1956 records. The enumerator listed each dwelling unit existing in the segment at the time of enumeration in 1959 and compared it directly with the 1956 records. In the editing process, the component of change for the entire period 1950 to 1959 was determined from the information reported by the 1959 enumerator in relation to the information reported in the earlier survey.

The procedure for measuring losses, described below in techniques 4 and 5, also utilized results of the NHI survey. Estimates of losses were obtained as the sum of the losses from 1950 to 1956 reported in the NHI and the losses from 1957 to 1959 reported by the 1959 enumerator; however, it was necessary to incorporate a technique to adjust for units reported as lost between 1950 and 1956 which had since returned to the housing inventory or had changed their loss status. For the period 1950 to 1959, estimates of losses reflect the final status of the unit in 1959. Thus, for example, a 1950 dwelling unit reported as having been changed to nonresidential use by 1956 and back to a dwelling unit by 1959 was not included in the losses for 1950 to 1959. On the other hand, a 1950 dwelling unit reported as vacant and unfit for human habitation in 1956 (tabulated as lost through "other means") and demolished by 1959 was tabulated as "demolished."

4. In segments that were in the NHI sample, the fourth technique measured losses since 1956. The enumerator was supplied with the address of each dwelling unit in the segment as reported in the NHI. The enumerator located each address and reported whether the unit was still a dwelling unit in 1959 or whether it was a loss, e.g., had been demolished, had changed

to nonresidential use, had moved from site, had changed to quasi-unit quarters, had become vacant and unfit for human habitation, or was otherwise lost from the inventory.

5. The fifth technique measured the number of units withdrawn from the 1950 inventory by 1956 but which either had come back into the housing inventory by 1959 or had changed their loss status. In the NHI, a procedure similar to that described above in technique 2 had been used to measure losses of structures. The 1959 enumerator was given the addresses of units reported as lost in the NHI. The 1959 enumerator revisited these "lost" units (except the units reported as demolished or otherwise destroyed by 1956) and determined their status at the time of the 1959 enumeration.

The above five techniques describe the procedures used to obtain measures of the counts of units by components of change. The enumerator may have been required to apply more than one of the techniques in a given segment. For characteristics of dwelling units (tenure, condition and plumbing facilities, number of rooms, etc.), a subsample of units was selected for some of the components of change. The particular method of selection depended on the survey technique used in the individual segment for measuring the counts of the components of change and is described in "Sample design."

Data collection forms.--Several basic forms were used for collecting data in the December 1959 survey and for transcribing data from the 1950 Census records. Most of the forms were of the conventional type, on which the enumerator recorded information by marking a precoded check box or writing in numerical answers or word entries. The form that was used for recording characteristics of units in the subsample was a FOSDIC schedule on which the enumerator recorded information by marking appropriate circles.

Enumeration procedure.--As described above under "Survey techniques," the determination of the component of change utilized the information recorded by the census enumerator in 1950. For segments not in the NHI survey, the 1959 enumerator listed each dwelling unit existing in the segment and reported its status (same, conversion, merger, new construction, or other addition) after referring to the 1950 Census records. The status had to be consistent with the year built, as reported by the 1959 respondent, and the information reported by the 1950 Census enumerator in 1950. The enumerator also reported the status of the 1950 unit. For example, if the enumerator determined there was one dwelling unit with five rooms in 1959 and the 1950 records showed two dwelling units, one of three rooms and one of two rooms, the 1959 enumerator was to report that the two 1950 units had been merged and the pre 1959 unit was the result of the merger. Or if the respondent reported that the unit was built in 1952, the enumerator referred to the 1950 Census records to verify that the unit had not been enumerated in 1950 before reporting it as new construction.

If house numbers or street names had changed since 1950, the enumerator had to identify, from the 1950 Census records, the specific unit he was enumerating in 1959. If a house had been demolished and a new one constructed on the same site with the same address, the enumerator was to report "new construction," rather than "same," for purposes of the 1959 inventory.

In some instances, particularly in rural areas, the enumerator could not identify the unit because of incomplete address or other designation in the 1950 Census records. In such cases, he determined the 1950 to 1959 comparison through inquiry of the present occupants or informed neighbors.

In measuring the number of "lost" units, the enumerator located the specific address and determined the disposition of the 1950 dwelling unit. For example, if a 1950 unit had been changed to a store, the enumerator was to report "changed to nonresidential use" (tabulated as "other loss"); however, if the 1950 unit had been demolished and a store erected in its place, the enumerator was to report "demolished."

For segments which were in the 1956 NHI survey, the enumerator followed a similar procedure except that the comparison

was made with the 1956 records. In a later clerical operation, the change for the entire 1950 to 1959 period was coded. For example, if the unit was reported by the 1959 enumerator as "same" for the period 1957 to 1959, and was reported in the NHI survey as new construction (built in 1954), the coder classified the unit as "new construction" for the 1950 to 1959 period.

Information on the 1959 characteristics of the components of change was obtained by direct interview with the occupants. For vacant units, information was obtained from owners, landlords, neighbors, or other persons presumed to know about the unit.

In a small percentage of cases, interviews for characteristics of the components of change were incomplete because the occupants were not found at home despite repeated calls or were not available for some other reason. A similar situation did not hold for the basic measures of components of change; the required information was obtained in virtually all cases.

Training and field review.--The enumerators were given detailed training and their work was reviewed. In addition to written instructions, many audio-visual aids were used. During the training, the enumerators used a workbook which contained practice exercises and illustrations. In the initial phases of their work, the enumerators were given on-the-spot training by supervisory or technical personnel. This was followed by a series of regularly scheduled field reviews of the enumerator's work by his crew leader or supervisor. The operation was designed to assure at an early stage that the enumerator was performing his duties properly and had corrected any errors he had made. When the quality of an enumerator's work was established as acceptable, the extent of the review was reduced, but a minimum review of all questionnaires for completeness and consistency was retained.

PROCESSING OF DATA

Mechanical processing.--Both conventional and electronic tabulating equipment were used in the editing, coding, and tabulating of the data. In addition, a limited amount of editing and coding was performed as a clerical operation.

To process the data, schedules were sent to the central processing office in Jeffersonville, Indiana, where the manual editing and coding were accomplished, the FOSDIC schedules were microfilmed, and a card was punched for each unit enumerated on the conventional-type schedules. In Washington, D.C., the markings on the microfilm of the FOSDIC schedules were converted to signals on magnetic tape by FOSDIC (Film Optical Sensing Device for Input to Computers). The tape was processed by an electronic computer which did some further editing and coding and tabulated the data. Data on the punchcards were processed partly by conventional and partly by electronic equipment.

The procedures used for processing the results of the December 1959 survey are a combination of those used in the April 1960 Census and those used in the 1950 Census. The April 1960 Census used FOSDIC schedules and electronic equipment, whereas the 1950 Census used conventional-type schedules and conventional tabulators for most of the reports.

Editing.--In a large statistical operation, human and mechanical errors occasionally arise in one form or another, such as failure to obtain or record the required information, recording information in the wrong place, misreading position

markings, and mechanical failure of the processing equipment. Inconsistencies and nonresponses were eliminated partly in the manual edit and partly by mechanical equipment. Intensive effort was made to keep errors to a practicable minimum.

For the component-of-change classification, most of the editing was performed manually. The edit included an independent clerical comparison with the 1950 Census records (and with the NHI records for units in the NHI) to verify the assigned classification.

For characteristics of the components of change, the editing and coding, for the most part, were accomplished by mechanical equipment. When information was missing, an entry was assigned based on related information reported for the unit or on information reported for a similar unit. For example, if tenure for an occupied unit was omitted but a rental amount was reported, tenure was automatically edited as "rented." For a few items, including condition of a unit, if the 1959 information was not reported and if the unit was classified as "same," the entry reported in 1956 (or in 1950 if not in NHI) was assigned in 1959. For several items, including 1950 value and rent for table 3, a "not reported" category was retained.

ACCURACY OF DATA

As in any survey, the results are subject to sampling variability, errors in the field work, and errors that occur in processing and tabulating. Aside from variation due to sampling (see "Sampling variability"), such errors also occur in a complete enumeration.

There are several possible sources of errors. Some enumerators may have missed occasional dwelling units in their segments or they may have misread the segment boundaries from the maps. They may not have asked the questions in the prescribed fashion, resulting in lack of uniformity in the statistics. The initial training and field review early in the enumeration corrected some of the errors arising from misunderstandings by the enumerator.

The data also are limited by the extent of the respondent's knowledge and his willingness to report accurately. For some units, information could not be obtained because of the temporary absence of the occupants and it was necessary to interview a neighbor or other informed respondent.

Editing and coding in the processing operations are subject to some inaccuracies. For units which were in the NHI survey, the 1959 enumerator reported the status of each unit in relation to its status at the time of the NHI. The classification of the component of change for the entire 1950 to 1959 period is subject to inaccuracies of the NHI enumerator as well as the 1959 enumerator.

Figures from the 100-percent tabulations of the 1950 and 1960 Censuses were used to obtain factors for the final estimates of some of the components (see "Estimation procedure"). The estimation procedure tended to improve the sampling variability of the estimates and, in some cases, to reduce biases resulting from underenumeration or overenumeration of dwelling units as well as noninterviews. The census figures also are subject to some small degree of error, as was revealed in the Post-Enumeration Survey of the 1950 Census.

Careful efforts were made at each step to reduce the effects of errors. However, it is unlikely that the controls were able to eliminate the effects of all of them.

SAMPLE DESIGN AND SAMPLING VARIABILITY

SAMPLE DESIGN

The sample used for the survey consisted of dwelling units located in clusters or land area segments representative of various geographic areas of the United States. The sampling materials from the 1956 NHI were used to the extent consistent with the requirements of the December 1959 survey.

Prior to the conduct of the December 1959 survey, a "new construction" universe was established. This universe consisted of areas of extensive new construction since 1950 in Alaska and Hawaii, and since 1956 in the rest of the United States. Except in Alaska and Hawaii, the universe of new construction for the period 1950 to 1956 had been established and incorporated in the 1956 NHI survey. These universes of new construction

were treated separately for sampling purposes to improve the efficiency of the sample design. Typically, about two-fifths of the new construction units (units built between 1950 and 1959) as estimated in the December 1959 survey were reported in segments selected from the total universe of new construction, 1950 to 1959; the remaining new construction units came from segments not in the new construction universe.

The sample for the United States consisted of the sample in the 9 metropolitan areas for which the NHI survey provided separate estimates and the sample in the balance of the country. The total sample consisted of approximately 22,500 segments, of which 6,900 were selected from the total 1950 to 1959 universe of new construction. A sample of addresses outside the 22,500 segments was included to measure certain types of losses.

The measures of the counts of units by components of change were obtained from the enumeration of all units within the sample of clusters or land area segments and the list of addresses, i.e., the "full" sample. The 1959 characteristics of the components were enumerated in a "subsample" of units within the segments. Since a similar subsample had been used in the NHI, the units in that subsample determined the units in the 1959 subsample. For units added since 1956 in these segments and for all units in segments not in the NHI, the subsample units were selected in a predetermined manner. As the enumerator listed each unit in the segment in the 1959 survey, he obtained the detailed information on characteristics for the subsample cases. For the 1950 characteristics of the components, some were tabulated for the full sample and others were tabulated for the subsample cases (see table I).

ESTIMATION PROCEDURE

The method of estimation of the final figures for counts of the components of change incorporated a ratio estimation procedure for some of the components. The ratio estimates used information available from the 1950 Census and the April 1960 Census based on the 100-percent enumeration. The ratio estimates of the type used tend to improve the sampling variability of the estimates where there is sufficiently high correlation between sample estimates of components and sample estimates of the census totals. Where there was an indication that the correlation was inadequate, the final estimates were obtained by inflating the sample figures by the reciprocal of the probability used in the selection of the sample. Ratio estimation procedures were applied in each of the 9 metropolitan areas separately to dwelling units in central cities and not in central cities; in the balance of each of the 4 regions, ratio estimation procedures were applied separately to dwelling units in central cities of SMSA's, dwelling units in the remainder of SMSA's, and dwelling units outside SMSA's.

One ratio estimation procedure was used for the group of components arising out of units in existence in 1950 (i.e., "same" units, conversions, mergers, demolitions, and other losses). This ratio estimate was applied to both the 1950 and 1959 sample estimates for counts of units reported as same or changed by conversion or merger, and to the 1950 sample estimates for counts of units lost through demolition or other means.

For estimates of new construction, a different ratio estimation procedure was used. This procedure involved obtaining data from a second visit to the same set of segments that was used to measure new construction. In this second visit to these segments, conducted after the April enumeration of the 1960 Census, the 1960 Census returns were used to determine the total number of housing units enumerated in each segment by the census enumerator. With this information, growth in the decade as shown by the 1950 and 1960 Census totals (based on the 100-percent enumeration) could be used to develop ratio estimates for counts of new construction units.

For units added through other sources, the final figures were obtained by inflating the sample figures by the reciprocal of the probability used in the selection of the sample.

The above procedures produced the estimates which are based on the full sample. For statistics based on the subsample, additional ratio estimate factors were used for the characteristics of each of the components of change, and these factors made the total for each component based on the subsample consistent with the total based on the full sample.

All the 1959 data presented in this report and the 1950 data in all tables except table I are based on a sample of units. In table 1, the 1950 data are based on the 100-percent enumeration, except for year structure built, household composition, and presence of nonrelatives. Data on year built are based on the 20-percent sample of 1950; data on household composition and presence of nonrelatives are based on the 20-percent sample of all farm units, 20 percent of all nonfarm units in metropolitan areas, and a combination of 3 1/3 percent and 1 1/9 percent of the nonfarm units in nonmetropolitan territory.

SAMPLING VARIABILITY

Since the estimates are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken, using the same questionnaires, instructions, and enumerators. The standard error is primarily a measure of sampling variability. As calculated for this report, the standard error does not incorporate the effect of random errors of response, processing, or coverage, nor does it take into account the effect of any systematic biases due to these types of errors. The chances are about 2 out of 3 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 19 out of 20 that the difference would be less than twice the standard error and 99 out of 100 that it would be less than 2 1/2 times the standard error.

Sample size.--The full sample for the United States consists of approximately 180,000 dwelling units, including the units in the 22,500 land area segments and the list of 38,400 specific addresses for measuring losses; the subsample consists of approximately 60,000 dwelling units. In table 1, the 1959 figures for total and new construction units on the first line of the table are based on the full sample; the 1959 data on characteristics in the remainder of the table are based on the subsample. In table 2, the counts by the five components of change, shown on the first line of the table, are based on the full sample; the data on the characteristics of the components

Table I.--SOURCE OF TABULATIONS

Table and item	Source
Table 1, 1959 data:	
Counts of all dwelling units.....	Full sample.
Characteristics.....	Subsample.
Table 1, 1950 data:	
Counts of all dwelling units.....	100 percent.
Characteristics:	
Year built.....	20 percent.
Household composition, presence of nonrelatives.....	20, 3 1/3, 1 1/9 percent.
All other.....	100 percent.
Table 2, 1959 data:	
Counts of all dwelling units.....	Full sample.
Characteristics.....	Subsample.
Table 3, 1950 data:	
Counts of all dwelling units.....	Full sample.
Characteristics of same units.....	Subsample.
Characteristics of remaining components.....	Full sample.
Tables 4 and 5, 1950 and 1959 data.....	Subsample.
Tables 6 and 7, 1959 data.....	Subsample.

In the remainder of the table are based on the subsample. In table 3, the 1950 counts by the five components of change, shown on the first line of the table, and the data on the characteristics of all the components except "same" units are based on the full sample; data on the characteristics of "same" units and the count of "same" units with 1950 records available are based on the subsample. In tables 4, 5, 6, and 7, all the data are based on the subsample. The source of the estimates in the various tables is summarized in table I.

Standard error of numbers and percentages.--The standard errors may be obtained by using table I in conjunction with tables II and III for absolute numbers and with table IV for percentages. In order to derive standard errors which could be

applied to the wide variety of dwelling units covered in this report and which could be prepared at moderate cost, a number of approximations were required. As a result, tables II to IV are to be interpreted as providing an indication of the order of magnitude of the standard errors rather than as the precise standard error for any specific item.

The standard errors in table II apply to counts of dwelling units by components of change, that is, the estimates of the number of dwelling units based on the full sample. The standard errors in table III are to be used for the 1950 and 1959 characteristics of the components of change and for the characteristics of the 1959 inventory--separately for characteristics based on the full sample and those based on the subsample.

Table Iia.--1959 INVENTORY--ROUGH APPROXIMATION TO STANDARD ERROR OF COUNTS OF COMPONENTS OF CHANGE

(Applicable to estimates in table A, based on full sample)

Area	All dwelling units		Same units, 1950 and 1959		Units changed by--				Units added through--			
	Estimated number	Standard error	Estimated number	Standard error	Conversion		Merger		New construction		Other sources	
					Estimated number	Standard error	Estimated number	Standard error	Estimated number	Standard error	Estimated number	Standard error
United States.....	58,468,000	350,000	40,097,000	90,000	3.8 2,582,000	60,000	775,000	40,000	15,003,000	330,000	1,050,000	50,000
Inside SMSA's.....	35,099,000	290,000	23,251,000	70,000	1,062,000	50,000	462,000	30,000	9,827,000	260,000	497,000	35,000
In central cities.....	18,769,000	160,000	14,046,000	60,000	712,000	40,000	318,000	25,000	3,420,000	160,000	274,000	25,000
Not in central cities.....	16,330,000	240,000	9,205,000	50,000	350,000	30,000	145,000	20,000	6,408,000	210,000	223,000	20,000
Outside SMSA's.....	23,369,000	190,000	16,806,000	60,000	520,000	35,000	313,000	25,000	5,176,000	190,000	554,000	35,000
Northeast.....	14,694,000	160,000	10,758,000	50,000	546,000	35,000	202,000	20,000	3,031,000	150,000	158,000	20,000
Inside SMSA's.....	11,199,000	140,000	8,252,000	40,000	417,000	30,000	142,000	15,000	2,293,000	130,000	96,000	15,000
Outside SMSA's.....	3,495,000	80,000	2,507,000	20,000	129,000	15,000	60,000	10,000	738,000	75,000	62,000	10,000
North Central.....	16,748,000	170,000	12,185,000	50,000	460,000	30,000	266,000	25,000	3,540,000	160,000	297,000	25,000
Inside SMSA's.....	9,644,000	140,000	6,637,000	40,000	292,000	25,000	156,000	20,000	2,429,000	130,000	130,000	15,000
Outside SMSA's.....	7,104,000	90,000	5,548,000	40,000	167,000	20,000	110,000	15,000	1,112,000	90,000	166,000	20,000
South.....	17,482,000	190,000	11,388,000	50,000	407,000	30,000	232,000	25,000	5,117,000	190,000	338,000	25,000
Inside SMSA's.....	7,776,000	150,000	4,556,000	30,000	237,000	25,000	122,000	15,000	2,747,000	140,000	113,000	15,000
Outside SMSA's.....	9,706,000	120,000	6,831,000	40,000	170,000	20,000	110,000	15,000	2,369,000	120,000	225,000	25,000
West.....	9,544,000	160,000	5,726,000	40,000	169,000	20,000	75,000	15,000	3,316,000	160,000	258,000	25,000
Inside SMSA's.....	6,480,000	140,000	3,805,000	30,000	116,000	15,000	43,000	10,000	2,358,000	120,000	157,000	30,000
Outside SMSA's.....	3,064,000	80,000	1,920,000	20,000	53,000	10,000	33,000	10,000	958,000	80,000	101,000	15,000

Table Iib.--1950 INVENTORY--ROUGH APPROXIMATION TO STANDARD ERROR OF COUNTS OF COMPONENTS OF CHANGE

(Applicable to estimates in table B, based on full sample)

Area	Units changed by--				Units lost through--			
	Conversion		Merger		Demolition		Other means	
	Estimated number	Standard error	Estimated number	Standard error	Estimated number	Standard error	Estimated number	Standard error
United States.....	775,000	40,000	1,590,000	60,000	1,933,000	70,000	1,783,000	60,000
Inside SMSA's.....	521,000	35,000	961,000	45,000	1,010,000	50,000	676,000	40,000
In central cities.....	347,000	30,000	666,000	40,000	758,000	40,000	373,000	30,000
Not in central cities.....	175,000	20,000	295,000	25,000	252,000	25,000	303,000	25,000
Outside SMSA's.....	254,000	25,000	630,000	35,000	923,000	45,000	1,107,000	50,000
Northeast.....	280,000	25,000	430,000	30,000	309,000	25,000	274,000	25,000
Inside SMSA's.....	214,000	20,000	308,000	25,000	271,000	25,000	171,000	20,000
Outside SMSA's.....	66,000	10,000	122,000	15,000	37,000	9,000	103,000	15,000
North Central.....	219,000	20,000	532,000	35,000	443,000	30,000	366,000	30,000
Inside SMSA's.....	137,000	15,000	315,000	25,000	277,000	25,000	143,000	20,000
Outside SMSA's.....	82,000	15,000	216,000	20,000	166,000	20,000	223,000	20,000
South.....	194,000	20,000	482,000	30,000	868,000	45,000	722,000	40,000
Inside SMSA's.....	110,000	15,000	308,000	25,000	291,000	25,000	172,000	20,000
Outside SMSA's.....	84,000	15,000	229,000	25,000	578,000	35,000	550,000	35,000
West.....	82,000	15,000	146,000	20,000	312,000	25,000	420,000	30,000
Inside SMSA's.....	60,000	15,000	84,000	15,000	171,000	20,000	190,000	20,000
Outside SMSA's.....	22,000	5,000	62,000	10,000	142,000	20,000	230,000	25,000

Components of Inventory Change

Table IIc.—NET CHANGE, 1950 TO 1959—ROUGH APPROXIMATION TO STANDARD ERROR OF COUNTS OF COMPONENTS OF CHANGE
(Applicable to estimates in table C, based on full sample)

Area	Total		Total added		Added through conversion		Total lost		Lost through merger	
	Estimated number	Standard error	Estimated number	Standard error	Estimated number	Standard error	Estimated number	Standard error	Estimated number	Standard error
United States.....	12,331,000	350,000	16,861,000	350,000	807,000	45,000	4,530,000	100,000	815,000	45,000
Inside SMSA's.....	8,681,000	290,000	10,865,000	280,000	541,000	35,000	2,184,000	70,000	498,000	35,000
In central cities.....	2,581,000	160,000	4,060,000	160,000	366,000	30,000	1,479,000	70,000	348,000	30,000
Not in central cities.....	6,100,000	240,000	6,805,000	220,000	175,000	20,000	705,000	40,000	150,000	20,000
Outside SMSA's.....	3,650,000	190,000	5,996,000	210,000	266,000	25,000	2,347,000	70,000	317,000	25,000
Northeast.....	2,643,000	160,000	3,455,000	160,000	267,000	25,000	811,000	45,000	228,000	25,000
Inside SMSA's.....	1,983,000	140,000	2,592,000	140,000	203,000	20,000	608,000	35,000	168,000	20,000
Outside SMSA's.....	660,000	80,000	863,000	80,000	64,000	10,000	203,000	20,000	62,000	10,000
North Central.....	3,002,000	170,000	4,078,000	170,000	241,000	25,000	1,076,000	50,000	266,000	25,000
Inside SMSA's.....	2,134,000	140,000	2,714,000	140,000	155,000	20,000	580,000	35,000	160,000	20,000
Outside SMSA's.....	868,000	90,000	1,364,000	100,000	85,000	15,000	496,000	35,000	106,000	15,000
South.....	3,828,000	190,000	5,668,000	200,000	214,000	20,000	1,840,000	55,000	250,000	25,000
Inside SMSA's.....	2,394,000	150,000	2,987,000	150,000	127,000	15,000	594,000	35,000	131,000	15,000
Outside SMSA's.....	1,435,000	120,000	2,681,000	140,000	87,000	15,000	1,246,000	50,000	119,000	15,000
West.....	2,857,000	160,000	3,661,000	160,000	87,000	15,000	803,000	40,000	71,000	15,000
Inside SMSA's.....	2,170,000	140,000	2,572,000	140,000	56,000	10,000	402,000	30,000	42,000	10,000
Outside SMSA's.....	687,000	80,000	1,089,000	90,000	31,000	10,000	401,000	30,000	29,000	10,000

In detail table 1, differences between 1950 and 1959 data are subject to sampling variability. The standard error of the difference between a figure based on the 100-percent enumeration in 1950 and a figure based on the 1959 sample is identical to the standard error of the 1959 estimate.

For "same" units in tables 4 and 5, change in an item from 1950 to 1959 is also subject to sampling variability. An approximation of the standard error of the change obtained by

using the sample data for both years can be derived by considering the change as an estimate and obtaining the standard error of an estimate of this size from table III. For example, if the number of owner-occupied units is shown in table 4 as 20,182,000 in 1950 and as 19,467,000 in 1959, the standard error of the 715,000 change is read from table III (for estimates based on subsample).

Table III.—ROUGH APPROXIMATION TO STANDARD ERROR OF CHARACTERISTICS OF COMPONENTS OF CHANGE FOR ESTIMATES BASED ON FULL SAMPLE AND ON SUBSAMPLE

Area	Standard error if size of estimate is—									
	10,000	25,000	100,000	500,000	1,000,000	1,500,000	5,000,000	10,000,000	25,000,000	50,000,000
FULL SAMPLE										
United States.....	...	...	20,000	40,000	50,000	80,000	120,000	...	...	...
Inside SMSA's.....	...	...	20,000	40,000	50,000	80,000	...	...	...	...
In central cities.....	...	10,000	20,000	40,000	50,000	80,000	...	...	...	...
Not in central cities.....	...	10,000	20,000	40,000	50,000	...	...	...	...	...
Outside SMSA's.....	...	...	20,000	40,000	50,000	80,000	...	...	...	...
Region.....	5,000	10,000	20,000	40,000	50,000	80,000	...	...	...	...
Inside SMSA's.....	5,000	10,000	20,000	40,000	50,000	...	...	...	...	...
Outside SMSA's.....	5,000	10,000	20,000	40,000	50,000	...	...	...	...	...
SUBSAMPLE										
United States.....	...	...	20,000	45,000	60,000	100,000	140,000	180,000	290,000	400,000
Inside SMSA's.....	...	...	20,000	45,000	60,000	100,000	130,000	160,000	...	...
In central cities.....	...	10,000	20,000	45,000	60,000	90,000	120,000	...	...	...
Not in central cities.....	...	10,000	20,000	45,000	60,000	90,000	120,000	...	...	...
Outside SMSA's.....	...	...	20,000	45,000	60,000	100,000	130,000	160,000	...	...
Region.....	5,000	10,000	20,000	45,000	60,000	90,000	120,000	...	...	...
Inside SMSA's.....	5,000	10,000	20,000	45,000	60,000	90,000	100,000	...	...	...
Outside SMSA's.....	5,000	10,000	20,000	45,000	60,000	90,000	90,000	...	...	...

Table IV.—ROUGH APPROXIMATION TO STANDARD ERROR OF PERCENTAGES OF CHARACTERISTICS OF COMPONENTS OF CHANGE

Estimated percentage	Base of percentage											
	50,000	100,000	250,000	500,000	750,000	1,000,000	2,500,000	5,000,000	10,000,000	25,000,000	50,000,000	
2 or 98.....	3.0	2.1	1.4	1.0	0.8	0.7	0.4	0.3	0.2	0.1	0.1	
5 or 95.....	4.8	3.4	2.1	1.5	1.2	1.0	0.7	0.5	0.3	0.2	0.2	
10 or 90.....	6.5	4.6	2.9	2.0	1.7	1.4	0.9	0.6	0.5	0.3	0.3	
25 or 75.....	9.4	6.6	4.2	3.0	2.4	2.1	1.3	0.9	0.7	0.4	0.3	
50.....	10.8	7.7	4.8	3.4	2.8	2.4	1.5	1.1	0.8	0.5	0.3	

The reliability of an estimated percentage depends on both the size of the percentage and the size of the total on which the percentage is based. Table IV contains approximations of such standard errors. This table may be applied to percentage distributions of characteristics based on the subsample. Standard errors of percentages for counts and characteristics based on the full sample may be obtained by multiplying the factor 0.85 by the figure obtained from table IV.

Standard error of medians.--The sampling variability of the medians presented in certain tables (median number of persons, number of rooms, value of property, contract rent, and gross rent) depends on the size of the base and on the distribution on which the median is based. An approximate method for measuring the reliability of an estimated median is to determine an interval about the estimated median, such that there is a stated degree of confidence that the true median lies within the interval. As the first step in estimating the upper and lower limits of the interval about the median (that is, the

confidence limits), compute one-half the number reporting (designated $N/2$) the characteristic on which the median is based. By the method described above for determining the standard error of an estimated number, compute the standard error of $N/2$. Subtract this standard error from $N/2$. Cumulate the frequencies (in the table on which the median is based) up to the interval containing the difference between $N/2$ and its standard error, and by linear interpolation obtain a value corresponding to this number. In a similar manner, add the standard error to $N/2$, cumulate the frequencies in the table, and obtain a value corresponding to the sum of $N/2$ and its standard error. The chances are about 2 out of 3 that the median would lie between these two values. The range for 19 chances out of 20 and for 99 in 100 can be computed in a similar manner by multiplying the standard error by the appropriate factors before subtracting from and adding to one-half the number reporting the characteristic. Interpolation to obtain the values corresponding to these numbers gives the confidence limits for the median.

SUMMARY OF FINDINGS

As of December 1959, there were an estimated 58,468,000 dwelling units¹ in the housing inventory in the United States. Approximately 32,966,000 of these units were occupied by their owners, 19,990,000 were occupied by renters, and the remaining 5,513,000 consisted of all types of vacant units (see table 1). In terms of medians, owner households averaged 3.1 persons and the size of their units averaged 5.4 rooms; for renter households, the medians were 2.7 persons and 4.0 rooms. Approximately 15 percent of the owner occupants had moved into their units in the preceding two years (1958 and 1959) while the corresponding figure for renter occupants was 44 percent.

Comparison with 1950 discloses a net gain of 12,331,000 dwelling units, or 27 percent over the 1950 inventory. Owner-occupied units increased from 55 percent of the occupied inventory in 1950 to 62 percent in 1959. In the 1950's, the proportion of units "not dilapidated, with all plumbing facilities" rose from 63 percent to 80 percent. The median size of units in 1950 was 4.6 rooms compared with 4.9 rooms in 1959.

The median gross rent for renter-occupied units increased during the decade from \$43 to \$69, and the median value of owner-occupied properties rose from \$7,400 to \$12,200.

Additional data on characteristics of the 1959 inventory and changes since 1950, which are helpful in the analysis of developments during the decade, are presented in tables 1 to 7. The counts and characteristics by components of change are summarized in tables A to D. The figures in these tables have been rounded to the nearest thousand; hence, the detail may not add to the totals.

Basic measures of change--Table A, which describes the source of the 1959 inventory, shows that approximately 40,057,000 or 69 percent of the dwelling units in the United States in December 1959 consisted of "same" units, that is, units which existed in 1950 and which were reported as essentially unchanged in 1959. The remaining 31 percent represented newly built units, those resulting from conversion or merger, and those added through other sources.

Table A.—SOURCE OF THE 1959 HOUSING INVENTORY

(Based on sample)

Area	All dwelling units, 1959	Same units, 1950 and 1959	Units changed by--		Units added through--		Percent distribution					
			Conversion	Merger	New construction	Other sources	All dwelling units, 1959	Same units, 1950 and 1959	Units changed by--		Units added through--	
									Conversion	Merger	New construction	Other sources
United States.....	58,468,000	40,057,000	1,582,000	775,000	15,003,000	1,050,000	100.0	68.5	2.7	1.3	29.7	1.8
Inside SMSA's.....	35,099,000	23,251,000	1,062,000	462,000	9,827,000	497,000	100.0	66.3	3.0	1.3	28.0	1.4
In central cities.....	18,769,000	14,046,000	712,000	318,000	3,420,000	274,000	100.0	74.8	3.8	1.7	18.2	1.5
Not in central cities.....	16,330,000	9,205,000	350,000	145,000	6,408,000	223,000	100.0	56.4	2.1	0.9	39.2	1.4
Outside SMSA's.....	23,369,000	16,806,000	520,000	313,000	5,176,000	554,000	100.0	71.9	2.7	1.3	22.7	2.4
Northeast.....	14,694,000	10,758,000	546,000	202,000	3,031,000	158,000	100.0	73.2	3.7	1.4	20.6	1.1
Inside SMSA's.....	11,159,000	8,252,000	417,000	142,000	2,293,000	96,000	100.0	73.7	3.7	1.3	20.5	0.8
Outside SMSA's.....	3,495,000	2,507,000	129,000	60,000	738,000	62,000	100.0	71.7	3.7	1.7	21.1	1.8
North Central.....	16,748,000	12,185,000	460,000	266,000	3,540,000	297,000	100.0	72.8	2.7	1.6	21.1	1.8
Inside SMSA's.....	9,644,000	6,637,000	292,000	156,000	2,429,000	130,000	100.0	68.8	3.0	1.6	25.2	1.4
Outside SMSA's.....	7,104,000	5,548,000	167,000	110,000	1,112,000	166,000	100.0	78.1	2.4	1.6	15.6	2.3
South.....	17,482,000	11,388,000	407,000	232,000	5,117,000	338,000	100.0	65.2	2.3	1.3	29.3	1.9
Inside SMSA's.....	7,776,000	4,556,000	237,000	122,000	2,747,000	113,000	100.0	58.6	3.0	1.6	35.3	1.5
Outside SMSA's.....	9,706,000	6,831,000	170,000	110,000	2,369,000	225,000	100.0	70.4	1.8	1.1	24.4	2.3
West.....	9,544,000	5,726,000	169,000	75,000	3,316,000	258,000	100.0	60.0	1.8	0.8	34.7	2.7
Inside SMSA's.....	6,480,000	3,805,000	116,000	43,000	2,358,000	157,000	100.0	58.7	1.8	0.7	36.4	2.4
Outside SMSA's.....	3,064,000	1,920,000	53,000	33,000	958,000	101,000	100.0	62.7	1.7	1.1	31.2	3.3

The proportion of "same" units varied among the geographic subdivisions of the Nation. Inside standard metropolitan statistical areas (SMSA's), about 66 percent of the 1959 inventory were "same" units; in comparison, 72 percent of the units outside SMSA's were "same." Of the units existing in 1959 in the "suburban" portions of the metropolitan areas, that is, within SMSA's but outside the central cities, approximately 56 percent were classified as "same," compared with 75 percent of the inventory inside the central cities.

With respect to the regions, the proportion of "same" units for both the Northeast and North Central Regions was

about the same--73 percent; for the South, this figure was 65 percent. The smallest proportion, 60 percent, was reported for the West.

"New construction" during the period 1950-1959 represented the largest source of housing added since 1950. Approximately 15,003,000 units, amounting to one-fourth of the 1959 inventory, were built during the decade and were still in existence in 1959. This represents an annual average of 1 1/2 million newly constructed dwelling units over the 9 3/4-year period.

The impact of "new construction" on the housing inventory varied among the geographic subdivisions of the Nation. New units accounted for 28 percent of the 1959 inventory inside standard metropolitan statistical areas and 22 percent of the total outside these areas. In the "suburban" portions of the metropolitan areas, newly constructed housing accounted for two-fifths of the 1959 inventory, compared with approximately

¹ Based on a sample. The number of "housing units" based on the 100-percent count in the April enumeration of the 1960 Census of Housing is 58,326,357; for comparability between housing unit and dwelling unit, see sections above on "Dwelling unit" and "Sampling variability."

one-fifth of the inventory in central cities. In absolute terms, the total volume of new residential construction outside the central cities of SMSA's was about twice that inside the central cities--6,408,000 units compared with 3,420,000.

Dwelling units constructed during the 1950's constituted approximately 35 percent of the 1959 inventory in the West, 29 percent in the South, and 21 percent in the Northeast and North Central Regions. In absolute numbers, the largest volume of "new construction" occurred in the South, where 5 million newly constructed units were added during the 1950-1959 period.

About 1,050,000 dwelling units, or 1.8 percent of the 1959 inventory in the United States, were added through "other sources" such as units added from nonresidential space, rooming houses, or transient accommodations, or units moved to site. Roughly 500,000 of the 1,050,000 units added through "other sources" were reported as units moved to site. For the United States, units moved to site do not necessarily result in net additions to the inventory since they presumably represent units lost in the locations from which they were moved. With respect to the geographic subdivisions, however, units moved to and from site may result in net changes if the units involved in these moves were originally located in different geographic areas.

Units added through "other sources" constituted 2.4 percent of the 1959 inventory outside standard metropolitan statistical areas and 1.4 percent inside these areas. Among regions, additions from "other sources" ranged from 1.1 percent in the Northeast to 2.7 percent in the West.

The Components of Change survey permits analysis of the effect of conversions and mergers on the housing supply.

Conversion refers to the creation of two or more dwelling units from fewer units through structural alteration or change in use. There were 1,582,000 converted units in the United States in 1959 (table A) which had been produced by dividing 775,000 units that existed in 1950 (table B). On the average, two units were created from one. On the other hand, merger refers to the combining of two or more dwelling units into fewer units through structural alteration or change in use. Merged units in 1959 amounted to about 775,000 units (table A). These were produced by combining an estimated 1,590,000 units that existed in 1950 (table B). Roughly one unit emerged from every two. Units involved in conversions and mergers represented 4 percent of the 1959 inventory. Differences between the respective 1950 and 1959 figures represent net changes through conversion and merger (table C).

Losses through mergers were largely offset by gains through conversions. Approximately 815,000 units were lost from the total inventory as a result of merger and 807,000 were created as a result of conversion (see table C). The pattern was roughly the same for the four regions and inside and outside SMSA's. The national averages of two units created from one through conversion, and one unit emerging from two through merger, also held consistently for geographic subdivisions.

Table B, which describes the disposition of the 1950 inventory, shows that the 40,057,000 "same" units constituted about 87 percent of the 1950 inventory. Thus, only 13 percent of the Nation's 1950 dwelling units were reported as demolished, lost through other means, converted, or merged by December 1959.

Table B.--DISPOSITION OF THE 1950 HOUSING INVENTORY

(Based on sample)

Area	All dwelling units, 1950	Same units, 1950 and 1959	Units changed by--		Units lost through--		Percent distribution					
			Conversion	Merger	Demolition	Other means	All dwelling units, 1950	Same units, 1950 and 1959	Units changed by--		Units lost through--	
									Conversion	Merger	Demolition	Other means
United States.....	46,137,000	40,057,000	775,000	1,590,000	1,933,000	1,783,000	100.0	86.8	1.7	3.4	4.2	3.9
Inside SMSA's.....	26,418,000	23,251,000	521,000	961,000	1,010,000	676,000	100.0	88.3	2.0	3.6	3.8	2.6
In central cities.....	16,188,000	14,046,000	347,000	666,000	738,000	373,000	100.0	86.8	2.1	4.1	4.7	2.3
Not in central cities.....	10,230,000	9,205,000	175,000	295,000	252,000	303,000	100.0	90.0	1.7	2.9	2.4	3.0
Outside SMSA's.....	19,719,000	16,806,000	254,000	630,000	923,000	1,107,000	100.0	85.2	1.3	3.2	4.7	5.6
Northeast.....	12,051,000	10,758,000	280,000	430,000	309,000	274,000	100.0	89.3	2.3	3.6	2.5	2.3
Inside SMSA's.....	9,216,000	8,252,000	214,000	308,000	271,000	171,000	100.0	89.5	2.3	3.3	3.0	1.9
Outside SMSA's.....	2,835,000	2,507,000	66,000	122,000	37,000	103,000	100.0	88.4	2.3	4.3	1.3	3.7
North Central.....	13,746,000	12,185,000	219,000	532,000	443,000	366,000	100.0	88.6	1.6	3.9	3.2	2.7
Inside SMSA's.....	7,510,000	6,637,000	137,000	315,000	277,000	143,000	100.0	88.4	1.8	4.2	3.7	1.9
Outside SMSA's.....	6,236,000	5,548,000	82,000	216,000	166,000	223,000	100.0	89.0	1.3	3.5	2.6	3.6
South.....	13,654,000	11,388,000	194,000	482,000	868,000	722,000	100.0	83.4	1.4	3.5	6.4	5.3
Inside SMSA's.....	5,382,000	4,556,000	110,000	253,000	291,000	172,000	100.0	84.7	2.0	4.7	5.4	3.2
Outside SMSA's.....	8,271,000	6,831,000	84,000	229,000	578,000	550,000	100.0	82.6	1.0	2.8	7.0	6.6
West.....	6,686,000	5,726,000	82,000	146,000	312,000	420,000	100.0	85.6	1.2	2.2	4.7	6.3
Inside SMSA's.....	4,310,000	3,805,000	60,000	84,000	171,000	190,000	100.0	88.3	1.4	2.0	3.9	4.4
Outside SMSA's.....	2,377,000	1,920,000	22,000	62,000	142,000	230,000	100.0	80.8	0.9	2.6	6.0	9.7

Losses through "demolition" amounted to approximately 1,933,000 units, or 4 percent of the 1950 inventory. Demolitions occurred more frequently in the South and West than in the Northeast and North Central Regions. Of the 1.9 million units in the Nation that were demolished, nearly one-half (45 percent) were in the South.

Within the central cities of the standard metropolitan statistical areas, about 5 percent of the units existing in 1950 were demolished. The proportion of demolitions in the "suburban" portions of the SMSA's was around 2 1/2 percent of the 1950 inventory. In the nonmetropolitan areas, demolitions accounted for 5 percent of the 1950 inventory.

Units lost through "other means" (destroyed by fire or flood, unfit for human habitation, changed to nonresidential uses, rooming houses, or transient accommodations, or moved from site) amounted to 1,783,000 units or 4 percent of the 1950

inventory. Approximately three-fifths of the losses through "other means" were in nonmetropolitan territory. (For the effect on net change of units moved to and from site, see discussion of table A with respect to units added through "other sources.")

Net change.--The figures in table C which summarize net changes in the housing inventory, are derived from tables A and B. New construction, conversion, and other sources added about 16,861,000 dwelling units to the 1950 inventory in the United States, or an average rate of gain of about 4 percent a year over the 1950 inventory. On the other hand, demolitions, mergers, and other losses removed approximately 4,630,000 dwelling units from the 1950 inventory, or an average rate of loss of about 1 percent a year. Thus, for every four units that were added to the inventory during the 1950's, slightly more than

Components of Inventory Change

Table C.--NET CHANGES IN THE HOUSING INVENTORY, 1950 TO 1959

(Based on sample)

Area	All dwelling units		Net change									
	December 1959	April 1950	Total		Units added through--				Units lost through--			
			Number	Per cent	Total added	Conversion	New construction	Other sources	Total lost	Merger	Demolition	Other means
United States.....	58,468,000	46,137,000	12,331,000	26.7	16,861,000	807,000	15,003,000	1,050,000	4,530,000	815,000	1,933,000	1,783,000
Inside SMSA's.....	35,099,000	25,418,000	8,681,000	32.9	10,865,000	541,000	9,827,000	497,000	2,184,000	498,000	1,010,000	676,000
In central cities.....	18,769,000	16,188,000	2,581,000	15.9	4,060,000	366,000	3,420,000	274,000	1,479,000	348,000	798,000	373,000
Not in central cities.....	16,330,000	10,230,000	6,100,000	59.6	6,805,000	175,000	6,408,000	223,000	705,000	150,000	292,000	303,000
Outside SMSA's.....	23,369,000	19,719,000	3,650,000	18.5	5,996,000	266,000	5,176,000	554,000	2,347,000	317,000	923,000	1,107,000
Northeast.....	14,694,000	12,051,000	2,643,000	21.9	3,455,000	267,000	3,031,000	158,000	811,000	228,000	309,000	774,000
Inside SMSA's.....	11,199,000	9,216,000	1,983,000	21.5	2,592,000	203,000	2,293,000	96,000	608,000	166,000	271,000	171,000
Outside SMSA's.....	3,495,000	2,835,000	660,000	23.3	863,000	64,000	798,000	62,000	203,000	62,000	37,000	103,000
North Central.....	16,748,000	13,746,000	3,002,000	21.8	4,078,000	241,000	3,540,000	297,000	1,076,000	266,000	443,000	366,000
Inside SMSA's.....	9,644,000	7,510,000	2,134,000	28.4	2,714,000	155,000	2,429,000	130,000	580,000	160,000	277,000	143,000
Outside SMSA's.....	7,104,000	6,236,000	868,000	13.9	1,364,000	85,000	1,112,000	166,000	496,000	106,000	166,000	223,000
South.....	17,482,000	13,654,000	3,828,000	28.0	5,668,000	214,000	5,117,000	338,000	1,840,000	250,000	868,000	722,000
Inside SMSA's.....	7,776,000	5,382,000	2,394,000	44.5	2,987,000	127,000	2,747,000	113,000	594,000	131,000	291,000	172,000
Outside SMSA's.....	9,706,000	8,272,000	1,435,000	17.3	2,681,000	87,000	2,369,000	225,000	1,246,000	119,000	578,000	550,000
West.....	9,544,000	6,686,000	2,857,000	42.7	3,661,000	87,000	3,316,000	258,000	803,000	71,000	312,000	420,000
Inside SMSA's.....	6,480,000	4,310,000	2,170,000	50.3	2,572,000	56,000	2,358,000	157,000	402,000	42,000	171,000	190,000
Outside SMSA's.....	3,064,000	2,377,000	687,000	28.9	1,089,000	31,000	958,000	101,000	401,000	29,000	142,000	230,000

one unit of the existing supply was removed. The resulting net increase of 12,331,000 units in the Nation represents an average annual gain of approximately 1 1/4 million units over the period of 9 3/4 years.

The net increase of 12.3 million units is about 1 1/2 times the gain of 8.7 million units between 1940 and 1950. The relative increase for the 1950-1959 period was 27 percent compared with the 23 percent increase for the 1940-1950 decade.

Growth for the 1950-1959 period was much greater inside than outside standard metropolitan statistical areas. Inside SMSA's, there was a net increase of 33 percent over the 1950 housing inventory compared with 19 percent outside SMSA's. Within SMSA's, there was a wide difference between the net increase outside and inside the central cities. Outside the central cities the net percentage increase since 1950 was approximately four times the increase in central cities--60 percent and 16 percent, respectively.

Growth in the West was relatively more rapid than that of the other regions; the percentage increase in the West since 1950 was about twice that of the Northeast and North Central Regions and one and one-half times that of the South. In terms of absolute numbers, however, growth was greatest in the South.

Characteristics of units created or removed.--Marked differences exist between the characteristics of "new construction" units and those removed from the inventory through "demolition." Typically, newly constructed units tended to be of better quality than units which were demolished. Approximately nine-tenths of the new units in the United States were not dilapidated and had all plumbing facilities (hot water, private toilet and bath), and the median size was 4.9 rooms. Of the occupied new units, only one out of four was occupied by renters in 1959 and the median gross rent was \$89. The median value for the new owner-occupied properties was \$15,300. In contrast, "demolition" tended to remove less desirable and poorer quality housing. Because of the relatively small numbers involved, however, the overall effect of demolitions on the characteristics of the housing supply is limited. In terms of their characteristics in 1950, only three-tenths were not dilapidated and had all plumbing facilities, and the median size was 3.6 rooms. The bulk of the occupied units (about three out of four) had been occupied by renters in 1950, and the gross rent at that time was \$33. The median value of owner-occupied units in 1950 was in the less than \$5,000 class interval.

Comparison of the characteristics of newly constructed units with those existing in the inventory as "same" indicates that new units tended to be higher in rents and values than "same" units. New units were also more frequently owner

occupied and contained larger households. For the newly constructed units in the United States, the gross rent and value medians were \$89 and \$15,300 respectively; the corresponding medians for "same" units were \$67 and \$10,400. The homeownership rate among new units was 76 percent, while the rate among "same" units was 59 percent. In terms of medians, households averaged 3.5 persons in new units and 2.8 persons in "same" units.

With respect to the characteristics of "new construction" units inside and outside the standard metropolitan statistical areas, rents and values of new units were higher inside than outside these areas. The median gross rent of newly constructed renter-occupied housing was \$95 inside SMSA's, compared with \$71 outside SMSA's; the corresponding figures for value of new owner-occupied properties were \$16,000 and \$13,100 respectively. Virtually all of the units inside SMSA's were not dilapidated and had all plumbing facilities compared with four-fifths of the units outside these areas.

The proportion of homeownership among new units was about the same (76 percent) inside and outside the SMSA's. In absolute terms, the number of owner-occupied units that were constructed during the 1950-1959 decade inside the metropolitan areas of the Nation was twice that outside the metropolitan areas--6,889,000 compared with 3,351,000, respectively. Similarly, more new rental housing was constructed inside than outside SMSA's--2,177,000 versus 1,036,000.

Within the SMSA's, the incidence of homeownership among newly built units was greater outside the central cities than inside these cities. Outside the central cities, eight out of ten new units were owner occupied in 1959, while the comparable statistic inside the cities was six out of ten. Approximately 4,876,000 new owner-occupied units were constructed in the "suburban" portions of the metropolitan areas, compared with 2,013,000 inside the central cities. In contrast, new renter-occupied housing was fairly evenly distributed inside and outside the central cities (roughly 1 million units in each group). There was very little difference in the quality of the newly built housing inside or outside the central cities of SMSA's; similarly, values and rents were about the same irrespective of location within the metropolitan areas.

Approximately 5 percent of the Nation's households occupying newly constructed units were nonwhite households in 1959; in contrast, the proportion of nonwhite households among all households was 9 percent (table 1). With respect to tenure, around one-half (47 percent) of the nonwhite households residing in new units owned their homes, whereas the comparable homeownership figure for total nonwhite households was two-fifths (39 percent).

Summary of Findings

Table D.--SUMMARY CHARACTERISTICS OF SELECTED COMPONENTS OF CHANGE: 1959 AND 1950

(Based on sample. Median not shown where base is insufficient; see text)

Area and subject	1959		1950 ¹		1959		1950 ¹		1959		1950 ¹	
	New construction	Same	Demolition	Same	New construction	Same	Demolition	Same	New construction	Same	Demolition	Same
	Total				Inside SMSA's				Outside SMSA's			
UNITED STATES												
Total number of units.....	15,003,000	40,057,000	1,933,000	40,057,000	9,827,000	23,251,000	1,010,000	23,251,000	5,176,000	16,806,000	923,000	16,806,000
Not dilapidated, with all facilities....	13,768,000	30,898,000	526,000	24,697,000	9,517,000	20,600,000	404,000	17,773,000	4,252,000	10,298,000	122,000	6,924,000
Percent of total.....	91.8	77.1	29.6	62.7	96.8	88.6	43.2	83.7	82.1	61.3	14.5	48.7
With 1.01 or more persons per room.....	1,522,000	4,007,000	462,000	4,347,000	900,000	2,204,000	220,000	2,248,000	622,000	1,803,000	242,000	2,100,000
Percent of occupied.....	11.3	11.0	30.1	12.8	9.9	10.0	25.5	11.0	14.2	12.5	36.1	15.7
Owner occupied.....	10,240,000	21,430,000	363,000	20,182,000	6,889,000	12,060,000	166,000	11,298,000	3,351,000	9,370,000	197,000	8,883,000
Percent of occupied.....	76.1	58.7	23.7	59.5	76.0	54.7	19.3	55.1	76.4	64.9	29.4	66.3
Median:												
Number of rooms.....	4.9	4.9	3.6	4.9	5.0	4.9	3.7	4.8	4.7	5.0	3.5	5.0
Number of persons.....	3.5	2.8	3.0	3.1	3.5	2.7	3.0	3.0	3.5	2.9	3.1	3.2
Value.....	\$15,300	\$10,400	\$5,000	\$7,600	\$16,000	\$12,100	\$7,200	\$8,900	\$13,100	\$7,300	\$5,000	\$5,600
Gross rent.....	\$89	\$67	\$33	\$48	\$95	\$71	\$35	\$50	\$71	\$49	\$29	\$41
Contract rent.....	\$78	\$54	\$27	\$39	\$86	\$59	\$28	\$41	\$57	\$40	\$23	\$31
NORTHEAST												
Total number of units.....	3,031,000	10,758,000	309,000	10,758,000	2,293,000	8,252,000	271,000	8,252,000	738,000	2,507,000	37,000	2,507,000
Not dilapidated, with all facilities....	2,886,000	9,416,000	122,000	8,120,000	2,239,000	7,451,000	111,000	6,587,000	647,000	1,965,000	11,000	1,533,000
Percent of total.....	95.2	87.5	41.5	83.3	97.6	90.3	42.2	86.3	87.7	78.4	35.4	72.8
With 1.01 or more persons per room.....	202,000	791,000	42,000	940,000	160,000	632,000	35,000	806,000	43,000	158,000	7,000	1,250,000
Percent of occupied.....	7.4	7.9	16.1	10.0	7.4	8.0	15.2	10.9	7.5	7.6	23.9	6.9
Owner occupied.....	2,139,000	5,293,000	35,000	4,852,000	1,642,000	3,806,000	26,000	3,491,000	498,000	1,487,000	10,000	1,360,000
Percent of occupied.....	78.6	53.0	13.6	51.8	76.1	48.2	11.0	47.1	88.0	71.1	34.3	69.7
Median:												
Number of rooms.....	5.1	5.2	3.8	5.2	5.1	5.0	3.8	5.0	5.0	5.7	4.1	5.8
Number of persons.....	3.6	2.8	2.9	3.2	3.7	2.8	2.8	3.1	3.4	3.0	3.1	3.2
Value.....	\$16,600	\$11,900	\$5,000	\$8,800	\$16,700	\$12,400	\$5,500	\$9,300	\$16,500	\$10,600	\$5,000	\$7,500
Gross rent.....	\$103	\$69	\$35	\$49	\$106	\$70	\$35	\$50	\$84	\$65	\$29	\$44
Contract rent.....	\$95	\$56	\$28	\$38	\$99	\$58	\$28	\$40	\$72	\$47	\$23	\$31
NORTH CENTRAL												
Total number of units.....	3,540,000	12,185,000	443,000	12,185,000	2,429,000	6,637,000	277,000	6,637,000	1,112,000	5,548,000	166,000	5,548,000
Not dilapidated, with all facilities....	3,294,000	9,421,000	126,000	7,257,000	2,367,000	5,846,000	92,000	4,931,000	927,000	3,575,000	34,000	2,326,000
Percent of total.....	93.1	77.3	29.6	65.4	97.5	88.1	34.2	80.8	83.4	64.4	21.8	46.7
With 1.01 or more persons per room.....	381,000	951,000	104,000	1,075,000	262,000	573,000	75,000	603,000	119,000	378,000	29,000	472,000
Percent of occupied.....	11.8	8.5	27.7	10.0	11.6	9.1	28.9	10.1	12.4	7.8	25.2	10.0
Owner occupied.....	2,783,000	7,227,000	98,000	6,859,000	1,948,000	3,862,000	57,000	3,582,000	835,000	3,365,000	41,000	3,278,000
Percent of occupied.....	86.2	64.9	26.1	64.1	86.1	61.3	22.1	60.0	86.6	69.5	35.1	69.1
Median:												
Number of rooms.....	4.9	5.2	3.5	5.1	5.0	5.0	3.5	4.9	4.8	5.4	3.4	5.4
Number of persons.....	3.6	2.7	3.1	3.0	3.6	2.8	3.2	3.1	3.5	2.7	2.9	3.0
Value.....	\$16,400	\$10,700	\$5,000	\$7,500	\$16,900	\$12,700	\$5,500	\$8,200	\$15,000	\$7,500	\$5,000	\$5,400
Gross rent.....	\$92	\$73	\$37	\$48	\$102	\$79	\$35	\$50	\$64	\$57	\$47	\$40
Contract rent.....	\$76	\$60	\$26	\$39	\$86	\$68	\$26	\$41	\$47	\$43	\$26	\$32
SOUTH												
Total number of units.....	5,117,000	11,388,000	868,000	11,388,000	2,747,000	4,556,000	291,000	4,556,000	2,369,000	6,831,000	578,000	6,831,000
Not dilapidated, with all facilities....	4,402,000	7,041,000	148,000	5,098,000	2,580,000	3,711,000	107,000	3,059,000	1,823,000	3,330,000	41,000	2,039,000
Percent of total.....	86.0	61.8	18.5	52.5	93.9	81.4	38.9	76.1	76.9	48.7	7.8	35.8
With 1.01 or more persons per room.....	579,000	1,646,000	248,000	1,784,000	255,000	634,000	85,000	517,000	324,000	1,012,000	163,000	1,266,000
Percent of occupied.....	13.0	16.2	35.8	19.4	10.5	15.0	33.4	13.6	16.0	17.1	37.3	23.6
Owner occupied.....	3,263,000	5,898,000	172,000	5,603,000	1,752,000	2,303,000	54,000	2,204,000	1,511,000	3,595,000	119,000	3,400,000
Percent of occupied.....	73.2	58.2	24.9	61.0	72.1	54.4	21.0	57.8	74.5	60.9	27.2	63.3
Median:												
Number of rooms.....	4.8	4.7	3.6	4.6	4.9	4.7	3.4	4.6	4.6	4.6	3.7	4.5
Number of persons.....	3.5	2.9	3.1	3.2	3.4	2.8	3.1	3.0	3.6	2.9	3.1	3.3
Value.....	\$12,500	\$7,500	\$5,000	\$6,100	\$13,800	\$9,600	\$8,700	\$7,600	\$10,100	\$5,900	\$5,000	\$5,000
Gross rent.....	\$77	\$55	\$30	\$44	\$85	\$66	\$33	\$49	\$59	\$42	\$27	\$36
Contract rent.....	\$63	\$44	\$24	\$37	\$73	\$53	\$26	\$44	\$47	\$40	\$22	\$26
WEST												
Total number of units.....	3,316,000	5,726,000	312,000	5,726,000	2,358,000	3,805,000	171,000	3,805,000	958,000	1,920,000	142,000	1,920,000
Not dilapidated, with all facilities....	3,186,000	5,021,000	130,000	4,222,000	2,331,000	3,593,000	94,000	3,196,000	855,000	1,428,000	36,000	1,025,000
Percent of total.....	96.1	87.7	50.2	86.1	98.8	94.4	73.4	92.2	89.2	74.3	27.6	71.3
With 1.01 or more persons per room.....	360,000	619,000	69,000	549,000	224,000	365,000	25,000	322,000	136,000	255,000	44,000	227,000
Percent of occupied.....	11.8	11.9	33.1	11.8	10.1	10.1	21.4	9.7	16.4	15.9	48.0	16.8
Owner occupied.....	2,054,000	3,011,000	58,000	2,867,000	1,547,000	2,089,000	30,000	2,022,000	507,000	922,000	28,000	846,000
Percent of occupied.....	67.4	57.7	28.0	61.5	69.8	57.7	25.4	61.0	61.2	57.6	31.2	62.8
Median:												
Number of rooms.....	4.7	4.6	3.1	4.5	4.8	4.6	4.1	4.5	4.5	4.4	2.5	4.4
Number of persons.....	3.4	2.5	3.1	2.8	3.4	2.5	3.1	2.8	3.4	2.7	3.1	3.0
Value.....	\$15,700	\$12,100	\$7,200	\$8,900	\$16,200	\$13,600	\$9,300	\$9,300	\$13,500	\$8,700	\$5,000	\$6,400
Gross rent.....	\$94	\$67	\$36	\$50	\$96	\$69	\$42	\$49	\$88	\$63	\$27	\$52
Contract rent.....	\$86	\$57	\$30	\$41	\$90	\$62	\$33	\$43	\$76	\$47	\$24	\$42
UNITED STATES												
	Inside SMSA's--Total				Inside SMSA's--In central cities				Inside SMSA's--Not in central cities			
Total number of units.....	9,827,000	23,251,000	1,010,000	23,251,000	3,420,000	14,046,000	758,000	14,046,000	6,408,000	9,205,000	252,000	9,205,000
Not dilapidated, with all facilities....	9,517,000	20,600,000	404,000	17,773,000	3,374,000	12,587,000	313,000	11,157,000	6,143,000	8,013,000	91,000	6,616,000
Percent of total.....	96.8	88.6	43.2	83.7	98.6	89.6	43.0	85.3	95.9	87.1	43.9	81.2
With 1.01 or more persons per room.....	900,000	2,204,000	220,000	2,248,000	312,000	1,355,000	175,000	1,517,000	589,000	849,000	45,000	730,000
Percent of occupied.....	9.9	10.0	25.5	11.0	9.7	10.1	25.4	11.9	10.0	9.8	26.0	9.4
Owner occupied.....	6,889,000	12,060,000	166,000	11,298,000	2,013,000	6,360,000	106,000	6,133,000	4,875,000	5,699,000	60,000	5,165,000
Percent of occupied.....	76.0	54.7	19.3	55.1	62.9	47.5	15.4	48.2	83.1	65.9	34.3	66.4
Median:												
Number of rooms.....	5.0	4.9	3.7	4.8	4.6	4.7	3.6	4.7	5.1	5.2	4.2	5.1
Number of persons.....	3.5	2.7	3.0	3.0	3.1	2.5	3.0	3.0	3.7	3.0	3.2	3.2
Value.....	\$16,000	\$12,100	\$7,200	\$8,900	\$15,600	\$11,300	\$6,800	\$8,500	\$16,100	\$13,000	\$7,700	\$9,500
Gross rent.....	\$95	\$71	\$35	\$49	\$93	\$70	\$35	\$49	\$97	\$72	\$37	\$50
Contract rent.....	\$86	\$59	\$28	\$41	\$84	\$60	\$28	\$42	\$88	\$57	\$29	\$40

¹ Data on characteristics based on units with 1950 records available.

The frequency of occupancy by the older population (persons 65 years old and over) was smaller in the Nation's new housing than in the total inventory. About one out of ten households in newly constructed units contained one or more persons 65 years of age and over, compared with two out of ten households in the total inventory.

Of the dwelling units in the United States which were lost through "demolition," approximately seven-tenths were dilapidated or lacked some plumbing facilities in 1950. In standard metropolitan statistical areas, 57 percent of the demolished units were in this category in 1950, while the comparable figure outside the metropolitan areas was 86 percent. Of the regions, the South had the highest proportion of demolished units that were dilapidated or lacked plumbing facilities (81 percent).

Approximately 76 percent of the 1,553,000 occupied units that were demolished during the period 1950 to 1959 had been renter-occupied in 1950 (table 3). Inside central cities of SMSA's, 85 percent of the demolished units had been renter occupied, compared with only 66 percent outside the central cities. The proportion of demolished units which had been renter occupied was 71 percent outside SMSA's and 81 percent inside SMSA's. Among regions, the proportions ranged from 72 to 86 percent.

One-fourth of the occupied units in the United States that were demolished during the 1950-1959 decade had been occupied by nonwhite households in 1950; the comparable figure for total nonwhite-occupied housing as a proportion of all occupied units in the Nation was one-tenth. Most (60 percent) of the demolished units that had been occupied by nonwhite households were located in the central cities of the SMSA's.

Of the 1,282,000 occupied dwelling units in the United States which were lost through "other means," an estimated 782,000 (six out of ten) had been renter-occupied in 1950 (table 3). The proportions were approximately 67 percent inside and 57 percent outside standard metropolitan statistical areas.

Of the renter-occupied units lost through "other means" (and for which gross rent was reported), approximately three-fifths had rented for less than \$40 per month in 1950. Of the owner-occupied units in the Nation, about seven-tenths had reported values of less than \$5,000 in 1950.

Approximately 70 percent of the units lost through "other means" were reported as dilapidated or lacking some plumbing facilities in 1950. The proportion was 55 percent inside SMSA's and 80 percent outside the metropolitan areas. Units dilapidated or lacking plumbing facilities constituted about three-fifths of the units lost through "other means" in the Northeast, roughly half in the West, and four-fifths in the South and North Central Regions.

Units involved in "conversion" or "merger" also affected the characteristics of the inventory, although the overall effect is limited because of the relatively small numbers of units involved. Occupied dwelling units changed by conversion involved approximately twice as many owner-occupied units as renter-occupied units in 1950--429,000 and 244,000, respectively (table 3). By 1959, as a result of conversion there were 433,000 owner-occupied and 964,000 renter-occupied units (table 2). Virtually all of the increment of dwelling units resulted in additions to the supply of rental housing. This pattern was similar for the various geographic subdivisions of the Nation.

Quality of housing tended to be at a higher level before conversion than after conversion. In 1950, about 22 percent of the units in the United States involved in conversion were either dilapidated or lacked some plumbing facilities whereas this category constituted 27 percent of the converted units in 1959.

The process of "merger" more frequently involved units which were renter-occupied in 1950. The effect on tenure was the reverse of that caused by conversion. Mergers tended to remove units from the renter supply, while leaving the number of owner-occupied units unchanged. Units changed by merger involved 461,000 owner-occupied and 964,000 renter-occupied units in the United States in 1950 (table 3); by 1959, as a result of

merger, there were 479,000 owner-occupied units and 247,000 renter-occupied units (table 2). This pattern was fairly uniform throughout the various geographic subdivisions.

Mergers tended to improve the overall quality of housing by reducing the number of dwelling units which were dilapidated or lacked some plumbing facilities (from 880,000 in 1950 to 172,000 in 1959); at the same time, the number of units which were not dilapidated and had all plumbing facilities remained about the same (614,000 in 1950 and 603,000 in 1959).

Characteristics of same units.--Information on "same" units is of special interest because it casts light on the utilization and quality of given dwelling units over the 10-year period. Tables 4 and 5, in which the 1950 characteristic is cross tabulated by the 1959 characteristic, permit an examination of shifts in tenure and color and in condition and plumbing facilities.

A sizable number of units in the Nation shifted from owner to renter occupancy as well as from renter to owner (table 4). Of the 1950 owner-occupied group in the United States, about 2,634,000 units or 13 percent were renter occupied in 1959. Conversely, about 2,332,000 units or 17 percent of the 1950 renter-occupied units became owner occupied by 1959. The overall homeownership rate, however, was at about the same level in 1950 and 1959. In the geographic subdivisions, the proportions were at roughly the same level in both years.

The major source of additional housing for nonwhite households between 1950 and 1959 were units formerly occupied by white households--approximately 1,125,000 units in the United States came from this source. Such units accounted for 35 percent of the "same" units occupied by nonwhites in 1959. Nonwhite occupancy in 1959 of units occupied by whites in 1950 varied widely among geographic areas. Inside SMSA's, 44 percent of the housing occupied by nonwhites in 1959 had been occupied by white households in 1950 compared with only 15 percent outside SMSA's. This shift in occupancy varied widely by regions; for the South the figure was 17 percent; for the Northeast and West it was 48 percent; and for the North Central, 57 percent.

About 151,000 units in the United States occupied by nonwhites in 1950 were occupied by white households by 1959. This number accounted for only 0.5 percent of the "same" units occupied by white households in 1959.

With respect to condition and plumbing facilities, the overall quality of "same" units in 1959 showed improvement over 1950 (table 5). Nevertheless, some downgrading as well as upgrading took place. In the United States, about 4,230,000 units were upgraded from "lacking some or all facilities or dilapidated" to "not dilapidated, with all plumbing facilities" between 1950 and 1959. During the same period, about 968,000 units were downgraded from "not dilapidated, with all plumbing facilities" to "lacking some or all plumbing facilities or dilapidated." Both the number upgraded and the ratio of upgraded units to downgraded units were higher outside SMSA's than inside these areas. Outside SMSA's, about 2,422,000 units were upgraded and only 413,000 units were downgraded. Inside the SMSA's, the figures were 1,828,000 units upgraded and 553,000 units downgraded.

Among regions, the North Central showed the greatest relative improvement with 7 times as many units upgraded as downgraded; the South was next with a 5 to 1 ratio, and the West and Northeast trailed with 3 and 2 1/2 to 1 ratios, respectively. Generally, improvement was greater for units that were owner occupied in 1950 than for those that were renter occupied.

It should be noted in tables 4 and 5, as well as in table 3, that the characteristics are based on units for which the 1950 Census records were available. For example, for approximately 11 percent of the dwelling units in the United States reported as "same," the 1950 Census records were not available. Therefore, the numbers shown for the characteristics in tables 3, 4, and 5 may be less than the figures that would have been obtained if all 1950 Census records were available. The percentages, however, would not be affected if the units with no 1950 data are distributed in approximately the same manner as the units for which the 1950 data are available.