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PROJECTIONS OF DEMAND FOR HOUSING BY TYPE OF UNIT AND REGION

Agriculture Handbook No. 428

U.S. Department of Agriculture

Forest Service

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OF
DEMAND FOR HOUSING
BY TYPE OF UNIT AND REGION**

Thomas C. Marcin

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PREFACE

This study presents a computer model for projecting long-run demand for housing by type of unit and region. The primary purpose of this model is to provide a framework for projecting future housing demand under specified assumptions relating to population and economic growth.

The study also presents three projections of possible housing demand for the period 1971–2020 based upon alternative assumptions about population and economic growth. These projections of housing demand are not intended as housing goals such as contained in the President's second annual report on housing goals (29),¹ but rather as a measure of probable demand for housing under the specified and implied assumptions.

This study was begun as a cooperative project between the Forest Service and Michigan State University, and completed as part of the research program of the North Central Experiment Station

of the Forest Service. The work was undertaken as one phase of the Forest Survey, authorized by Section 9 of the McSweeney-McNary Forest Research Act of 1928, as amended, which authorized and directed the Secretary of Agriculture to cooperate with State and other agencies "in making and keeping current a comprehensive survey of the present and prospective requirements for timber and other forest products..."

Professor Robert Manthy of the Department of Forestry at Michigan State University aided in the formulation and design of the study. Special acknowledgement also is due Dwight Hair and Robert B. Phelps of the Forest Service and John Fedkiw, Deputy Director, Office of Planning and Evaluation, U.S. Department of Agriculture, for reviews and other assistance in the preparation of this report. The author also appreciates the reviews by James J. Mikesell of the Economic Research Service, Joseph Haspray, Deputy Administrator of the Farmer's Home Administration, and Duane McGough and colleagues in the Department of Housing and Urban Development.

¹ Italic numbers in parentheses refer to items cited in the references, p. 28.

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HIGHLIGHTS

Current expectations about future population and economic growth indicate that the Nation is faced with a major increase in the demand for housing. Types of housing unit demanded over the next 50 years also are likely to change dramatically if the historic relationship of type of housing unit occupied to the age of household head continues. The prospective changes in the demand for housing by type of unit can be summarized as follows:

(a) A large demand for multifamily units and mobile homes will exist in the 1970's because of the large number of young households.

(b) A large potential demand for some type of moderately priced one-unit housing will build up in the 1970's as the number of households in the 25- to 34-year-old age group increases rapidly. This is the age group in which households usually acquire their first single-family house.

(c) In the 1980's the number of households in the 30- to 44-year-old age classes is projected to increase by nearly a million a year. Since this age group occupied a high percentage of one-unit housing there will probably be a large increase in the demand for this type of unit in the 1980's.

(d) A large number of apartments will still be in demand in the early 1980's, but overcapacity may occur by the mid-1980's as the decline in births of the 1960's has its effect. In the 1980's an absolute decline in the number of households under age 25 is projected.

(e) The second home demand in the 1970's may not be as great as is often anticipated since there will be little growth in the number of households aged 40-60. This age group is the major market for second homes. By the late 1980's a large increase in second home demand should develop as the number of households in their 40's increases rapidly.

(f) Custom built and individually styled homes are demanded principally by individuals in the 40-60 age group who are upgrading the quality of their housing. In the 1990's when the number of households in this age group is projected to grow sharply, a new era of individually styled homes may develop

as affluent middle-aged society seeks to improve the quality of its housing.

(g) The demand for housing by senior citizens will continue at its present strong pace until the late 1990's when the decline in births from 1925 to 1935 significantly diminishes the projected growth of households 65 and older. By 2010, however, a tremendous increase for households 65 and older is projected when the population bulge of persons born from 1940 to 1960 reaches this age.

(h) In addition to the prospective changes in types of housing demanded the study also shows that the 1980's should present an excellent opportunity to upgrade the housing stock. Population increases will reach a peak in the early 1980's and decline significantly in the rest of the decade. The momentum of housing programs and the mobilization of resources for homebuilding in the 1970's should provide a large housing production capacity. The combination of this capacity plus a decline in population pressure should allow for substantial rebuilding of cities and replacement of substandard housing units.

(i) In the 1990's, the population growth rate assumption first becomes significant in determining total housing demand. Population pressure for additional households will reach a low point in the early 1990's because of the decline in births of the 1960's. By the late 1990's, an upswing in housing demand is projected. The magnitude of the upswing depends on the size of the increase in the number of births projected for the 1970's.

(j) After the year 2000 the projection series diverge more rapidly as alternative assumptions about future population growth become increasingly more important in determining the number of households and total housing demand. By the year 2020 the total number of households is projected to range from 115 million to 135 million and total housing demand is projected to vary from 2.7 million to 4.5 million units a year. The difference between the projections is largely due to the cumulative effect of alternative population growth assumptions after 1970.

INTRODUCTION

During the past few decades more than a third of all lumber and plywood consumed in the United States plus large volumes of other timber products have been used in the construction or manufacture of housing. It is expected that housing will continue to be the Nation's largest market for timber products. Hence, future trends in housing construction are of major significance in appraisals of future demands for timber products (32, 43, 44).

One of the important factors determining demands for lumber and other timber products in residential construction is the type-mix of housing units built. In 1970, for example, use of lumber, plywood, and other wood products averaged about 17,000 board feet equivalent in single-family units, about 6,000 board feet equivalent in multifamily housing, and 3,400 board feet equivalent in mobile homes.

Striking changes have taken place in the type-mix of dwelling units constructed. During the first three decades of this century the ratio of 1-unit houses to total housing units constructed declined fairly continuously, reaching a low of 56 percent in 1927. In the early 1930's, the trend reversed and the ratio of 1-unit structures rose to an all-time high of over 90 percent of all housing starts in the mid-1950's (11). The trend reversed again, however, and by 1968 the proportion of 1-unit starts had declined to about the same level as in 1928 (i.e., 57 percent). Over the long run about two-thirds of total housing starts have been 1-unit structures.

In the 1960's the mobile home emerged as a dynamic and significant innovation in the housing market. Its share of total housing production grew

from 6 to 22 percent, as the number of mobile home units shipped increased from 90,000 in 1961 to 413,000 in 1969.²

The geographic location of construction also is a basic determinant of housing characteristics and volumes of wood products used per housing unit. As an illustration, lumber used in single-family houses in 1968 ranged from a low of 7,271 board feet in Florida to a high of 12,096 board feet in the Southwest (27).

The regional distribution of residential construction has changed materially in recent decades, largely as a result of internal migration. Between the 1920's and the 1940's, for example, the share of housing starts in the West increased from 15.9 to 21.6 percent, and the South's share from 24.4 to 35.1 percent, with compensating decreases in the Northeast and North Central regions (11).

In the following analysis these various factors and trends have been taken into account in projecting housing demand. The term housing "demand" as used in this study is defined to include housing production for new family formations, replacements, and vacancies that might be expected under the specified and implied demographic and economic assumptions.

² The mobile home itself underwent a dramatic evolution in the 1960's, with the maximum size of units increasing from 8 feet by 45 feet to 12 feet and 14 feet by 68 feet. Mobile modular units such as today's "doublewide" sectional homes also are increasingly difficult to distinguish from other forms of preassembled modular housing units.

THE MODEL

The most logical place to begin in making longrun projections of housing demand is to study the future growth in population and changes in its age distribution, because these are basic indicators of the demand for housing in terms of both numbers and types of units.

The first consideration in developing a projection model is the relationship of population to household formation. Household formation is, of course, related

to population growth, but it is also related to age, sex, marital status, income, and other factors. Of these, age is the most important, largely because it serves as a good proxy for many of the important variables. For example, the sex ratio, marital status, income, and assets all have age-related cycles. In addition, age has an advantage for projection purposes because its distribution value is known with some certainty for several decades.

HOUSEHOLD LIFE-CYCLE SECTOR

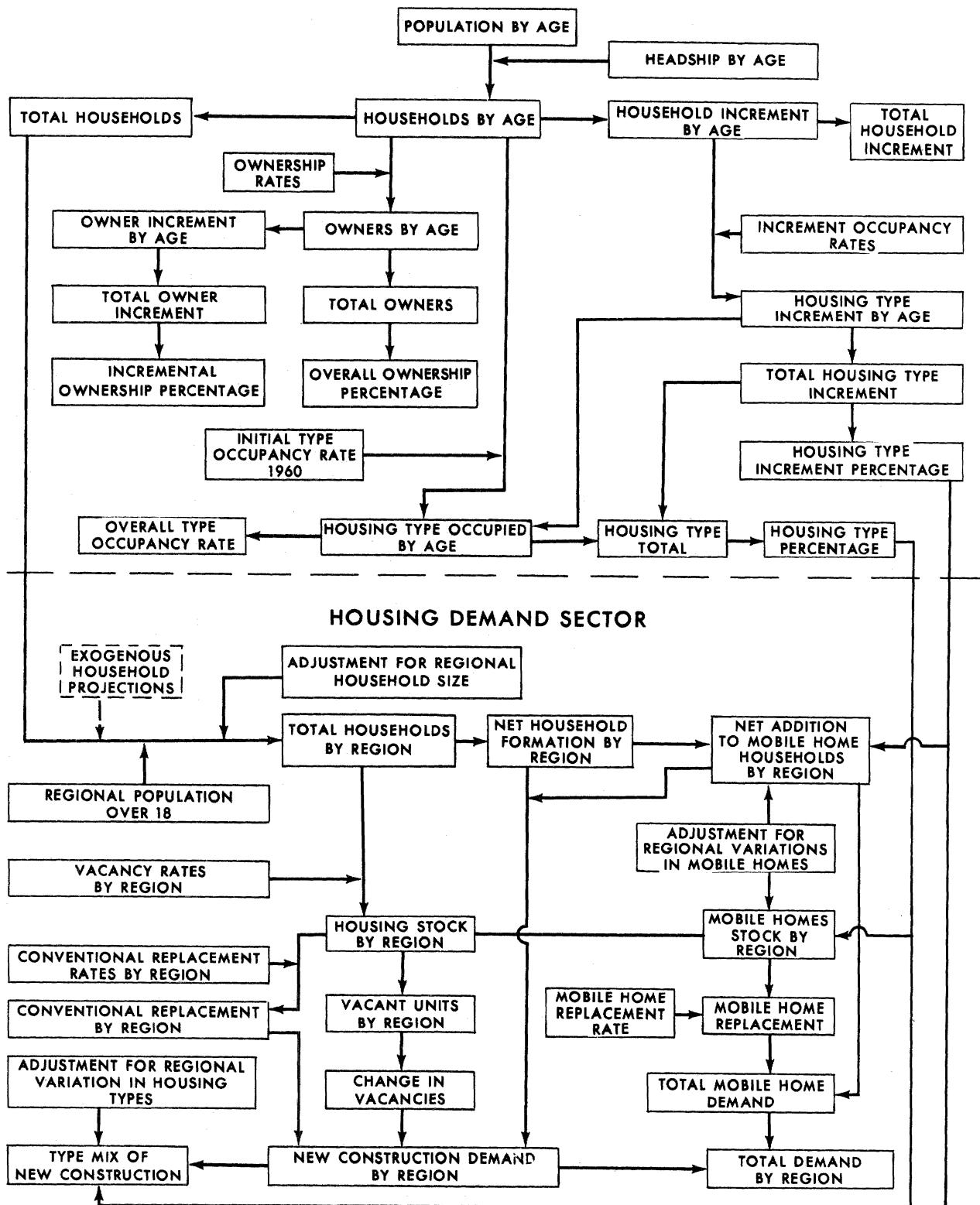


FIGURE 1.—Flow chart of the model.

Age is also a primary factor in other aspects of housing demand, especially the demand for certain types of units and for second homes. Shifts in the age composition of the population can lead to changes in housing demand even if economic conditions and consumer preferences remain constant (6).

The model developed in this study relating household formation to population growth and age distribution is similar to Campbell's life-cycle model of housing demand (6, 7). Other authors have used similar approaches to the same problem in a less formal manner (8, 30).

The starting point of this approach is to divide total projected population into age classes. The first life-cycle effect to be considered is the relation of population by age to household formation. From this beginning an analytic framework is given from which the model is formulated. The model has two main sectors—the household life-cycle sector and the housing demand sector (fig. 1).

The household life-cycle sector

A primary goal of the household life-cycle sector of the model is to isolate demographic factors. For this purpose the concept of headship (H) is used and defined in the model as the proportion of the population (POP) that heads households (HH); or,

$$H = \frac{HH}{POP}$$

The number of households can then be calculated from the headship rate and the population as follows:³

$$HH = H * POP$$

In this model age is the only demographic variable considered. Other factors such as sex, race, marital status, etc., could be considered.

For I population age classes, the general household formation relationship is formulated for the i^{th} population age class as follows:

$$HH_n^i = H_n^i * POP_n^i$$

where for year n —

HH^i =total household for age class i

POP^i =population in age class i

H^i =headship for age class i

The total number of households is obtained by summing over the I age classes:

$$HHT_n = \sum_{i=1}^I HH_n^i$$

The intertemporal household increment for the i^{th} age class is

$$\Delta HH^i = HH_n^i - HH_{n-1}^i$$

or it can be expressed—

$$\begin{aligned} \Delta HH^i &= H_n^i * POP_n^i - H_{n-1}^i * POP_{n-1}^i \\ &= (H_{n-1}^i + \Delta H^i) * (POP_{n-1}^i + \Delta POP^i) \\ &\quad - H_n^i * POP_{n-1}^i \\ &= \Delta H_n^i * POP_{n-1}^i + H_{n-1}^i * \Delta POP_n^i \\ &\quad + \Delta H^i * \Delta POP^i \end{aligned}$$

The first expression of the equation represents the effects of change in the headship rate or the effect of nondemographic factors. The second represents the effect due to change in the size of the population in the i^{th} age class. The third represents the interaction of changes in both headship and population. If headship does not change then

$$\Delta HH^i = H_{n-1}^i * \Delta POP_n^i$$

and household formation is a function of demographic factors only. The total increment in households is obtained by summing:

$$\Delta HHT = \sum_{i=1}^I \Delta HH^i$$

The tenure relationship of housing demand, an important factor in estimating demand by type of unit, can be calculated in a manner similar to household formation. A homeownership function is defined for each age class of households. The homeownership demand, or number of homeowners (HO), for the i^{th} age class in year n is

$$HO_n^i = O_n^i * HH_n^i$$

where

O^i =the homeownership rate among households in age class i

The increment in homeowners is

$$\Delta HO^i = O_n^i * HH_n^i - O_{n-1}^i * HH_{n-1}^i$$

or it can be expressed—

$$\begin{aligned} \Delta HO^i &= HO_n^i - HO_{n-1}^i \\ &= (O_{n-1}^i + \Delta O^i) * (HH_{n-1}^i + \Delta HH^i) \\ &\quad - O_{n-1}^i * HH_{n-1}^i \\ &= \Delta O^i * HH_{n-1}^i + O_{n-1}^i * \Delta HH^i + \Delta O^i * \Delta HH^i \end{aligned}$$

If homeownership rates are unchanged, then

$$\Delta HO^i = O_{n-1}^i * \Delta HH^i$$

³ The asterisk sign, *, is used to denote multiplication.

The totals are obtained by summation:

$$HOT_n = \sum_{i=1}^I HO_n^i$$

$$\Delta HOT = \sum_{i=1}^I \Delta HO^i$$

The percentage of households that are homeowners (*HOP*) and the percentage of homeowners in the household increment (*DHOP*) can also be calculated

$$HOP_n = \frac{HOT_n}{HHT_n}$$

$$DHOP_n = \frac{\Delta HOT}{\Delta HHT_n}$$

Because of the wide variation in wood use, the type-mix of the housing requirement is a major concern of this model. Various classifications of housing type may be made, including for example, structural types or value classes. In this model three structural types are considered: one-unit structures, multiunit structures, and mobile homes. Two housing occupancy rates are defined for housing type (*HT*) in relation to age class (*i*) in a manner similar to that for headship. They are:

(1) The overall occupancy rate (*G*) for each housing type (*j*) by age class (*i*)— G_n^{ij} .

(2) The incremental occupancy rate (*E*), which is the differential rate at which the net annual increment to households by age class occupies different housing types— E_n^{ij} .

The *j*th housing type required by the *i*th age class in the year *n* is expressed as follows if the overall occupancy rate is known:

$$HT_n^{ij} = G_n^{ij} * HH_n^i$$

The housing type increment is

$$\Delta HT^{ij} = HT_n^{ij} - HT_{n-1}^{ij}$$

or, if the incremental occupancy rate is given,

$$\Delta HT_n^{ij} = E_n^{ij} * \Delta HH_n^i$$

and

$$HT_n^{ij} = HT_{n-1}^{ij} + \Delta HT_n^{ij}$$

The overall rate for each age class *i* in year *n* is calculated as:

$$G_n^{ij} = \frac{HT^{ij}}{HHT_n^i}$$

The total demand (*HTT*) and increment (*ΔHTT*) for each housing type is made by summing over the

age classes:

$$HTT_n^i = \sum_{i=1}^I HT_n^{ij}$$

$$\Delta HTT^i = \sum_{i=1}^I \Delta HT^{ij}$$

The percentage of household occupancy for each housing type (*PHTT*) and for the increment of each housing type (*PDHTT*) is calculated as follows:

$$PHTT_n^i = \frac{HTT_n^i}{HHT_n}$$

$$PDHTT_n^i = \frac{\Delta HTT_n^i}{\Delta HHT_n}$$

The housing demand sector

Household growth represents a basic source of demand for housing. There are two other important sources; i.e., the demand for units to (1) maintain the inventory of vacant units, and (2) replace units removed from the existing housing stock by natural disaster, demolition, abandonment, merger, or other similar causative forces (33).

This housing demand sector of the model provides a method of projecting vacancy and replacement demand. It also provides a means of distributing the total number of households by region on the basis of regional population projections. Vacancy rates and replacement rates are input for the regions and total housing demand by type is projected for each region. The national total is obtained by summing the regions. Before outlining the steps in this section of the model, however, certain basic relationships need to be developed.

The stock of housing units (*HU*) in existence at a point in time can be divided into households (*HH*), i.e., those units which are occupied as primary residences as defined by the Census Bureau, and "vacant" units (*VU*), which are not occupied as primary residences. At any given time, *n*, the demand for housing units then is

$$HU_n = HH_n + VU_n$$

Similarly at the preceding point in time,

$$HU_{n-1} = HH_{n-1} + VU_{n-1}$$

The incremental demand for housing is

$$HU_n - HU_{n-1} = (HH_n - HH_{n-1}) + (VU_n - VU_{n-1})$$

or

$$\Delta HU = \Delta HH + \Delta VU$$

Then by definition the increment to the housing

stock between periods must be reflected in a change in either the number of households or the number of vacant units.

The number of existing housing units may be altered either by the addition of new housing units or by the removal of existing ones. New units may be added by new construction, production of mobile homes, or from other sources such as conversion or adaptation of existing structures. Housing units may be removed from the housing stock for many reasons indicated above. A net replacement demand (R) is defined to be total removals minus net additions from sources other than new conventional construction (HC) and mobile homes (MH).

The increment to the housing stock is then stated as the sum of new conventional construction plus mobile homes minus net replacement, or—

$$\Delta HU = (HC_n + MH_n) - R_n$$

Total housing demand is derived by equating the two identities for the housing increment:

$$HC_n + MH_n = \Delta HH + \Delta VU + R_n$$

and conventional housing construction is

$$HC_n = \Delta HH + \Delta VU + R_n - MH_n$$

The total number of vacancies (VUT) is calculated from the housing stock and the vacancy rate (V) for time n :

$$VUT_n = V_n * HU_n$$

The housing stock (HHT) may also be determined from total households and the vacancy rate:

$$HUT_n = \frac{HHT_n}{1 - V_n}$$

Total replacement (R) is derived from the replacement rate (RR) and the housing stock. For housing stock of type j for time n , replacement is

$$R_n^j = RR_n^j * HU_n^j$$

For the two housing types used in the model the relations are

$$RHC_n = RRHC_n * HCHU_n$$

and

$$RMH_n = RRMH_n * MHHU_n$$

Then total replacement (RT) is

$$RT_n = RHC_n + RMH_n$$

With these relationships established, steps in the regional housing requirements sector of the model are as follows.

For K regions, the total number of households is distributed on the basis of the adult population in

the k th region, adjusted for the variation of the region from the national household formation rate. The adjustment factor (AF) is

$$AF^k = \frac{\left(\frac{\text{Household}}{\text{Population 18+}} \right) \text{Region } k}{\left(\frac{\text{Household}}{\text{Population 18+}} \right) \text{U.S.}}$$

To distribute households between the K regions—

$$HH_n^k = HHT_n * AF^k * POP_n^k$$

where AF 's are restricted so that

$$\sum_{k=1}^K AF^k = 1.$$

Estimates of vacancy rates by region, V_n^k , are made.

Housing stock is determined—

$$HU_n^k = \frac{HH_n^k}{1 - V_n^k}$$

Total vacant units then are

$$VU_n^k = HU_n^k - HH_n^k$$

and the national totals are

$$HU_n = \sum_{k=1}^K HU_n^k \quad \text{and} \quad VU_n = \sum_{k=1}^K VU_n^k$$

Replacement rates by region are estimated separately for conventional housing and mobile homes. Conventional replacements needed each year are then

$$RHC_n^k = RRHC_n^k * HCHU_{n-1}^k$$

The mobile home replacements are

$$RMH_n^k = RRMH_n^k * MHHU_{n-1}^k$$

where $RRHC$ and $RRMH$ are based on estimates of the average life of conventional housing and mobile homes, respectively. The national totals for replacement are obtained by summing over the K regions.

New conventional construction for each region is estimated from the components of housing demand (household formation (ΔHH), net change in vacant units (ΔVU), net replacement (RHC), and the net additional new mobile home households (AMH)) as—

$$HC_n^k = \Delta HH_n^k + \Delta VU_n^k + RHC_n^k - AMH_n^k$$

The net addition of occupied mobile homes, AMH_n^k , is defined later.

The number of one-unit structures is estimated by assuming that the net increment to the housing stock will be distributed according to the increment in

housing types ($P\Delta SF$) derived from the life-cycle section of this model, and that replacement demand will be distributed according to the total housing stock (PSF). The relation for one-unit houses (HCS) for each region k and year n is

$$HCS_n^k = (\Delta HU_n^k - AMH_n^k) * B1^k * P\Delta SF + RHC * B1^k * PSF$$

where

$$B1^k = \frac{\% \text{ one-unit houses in region } k}{\% \text{ one-unit houses in U.S.}}$$

Multifamily dwelling units (HCM) are simply the difference:

$$HCM_n^k = HC_n^k - HCS_n^k$$

The estimate of the additional number of mobile homes used in each region as primary households (AMH) is obtained by adjusting the national percentage of new mobile households ($P\Delta MH$) for regional variation and multiplying this by the house-

hold formation of the region:

$$AMH_n^k = \Delta HH_n^k * B3^k * P\Delta MH_n$$

where

$$B3^k = \frac{\% \text{ mobile homes in region } k}{\% \text{ mobile homes in U.S.}}$$

Total mobile home shipment is net mobile homes plus replacement, adjusted for units not used for primary residences:

$$MHT_n^k = \frac{AMH_n^k + RMH_n^k}{SX}$$

where

$$SX = \% \text{ mobile homes used as residences.}$$

The total housing requirement is the sum of new construction plus mobile homes:

$$HUT_n^k = HC_n^k + MHT_n^k$$

National totals throughout are obtained by summing over the regions.

BASIC ASSUMPTIONS

The input information required for the household life-cycle sector of the housing demand model described above includes population, headship, ownership rates, and housing type occupancy rates by age class. The output information provided by this sector is the total and annual increment for households, homeowners, and the housing types. The ratio of homeowners and the housing types to the household total and annual household increment is also calculated.

Time-paths of housing demand are generated in the housing demand sector of the model. The data input requirement for this sector of the model includes projections of total households and regional projections of population, vacancy rates, and replacement rates. The output includes annual housing demand by region and for the United States. Housing demand is also broken down by type of unit.

Population and household formation

The number of households at any point in time is determined by the number of individuals willing and able to occupy separate dwelling units. The most obvious and necessary determinants of household formation are, therefore, the size and structure of the population and the level of income.

At a given time, population sets only an upper limit on the number of households. The number of households is also bounded by the size of the housing stock. A household is equivalent to an occupied housing unit, thus the number of households cannot by definition exceed the size of the housing stock. If the housing stock is not allowed to expand freely through new construction, then household formation may be restricted by lack of adequate housing units. For example, some families doubled up because of the housing shortage caused by World War II.

In the long run, however, population and income factors dominate the level of household formation, and the supply of housing units adjusts to meet this demand (10, 11). The supply of housing units may come from sources other than conventional housing starts, such as the conversion of existing units much of which occurred in the thirties and forties, or the manufacture of mobile homes—a widespread practice in recent years.

Population change

Until the 1920's, immigration was the most important factor in population growth in the United States. Immigration has been restricted since the 1920's and currently net immigration amounts to about 400,000 persons annually. The change in future

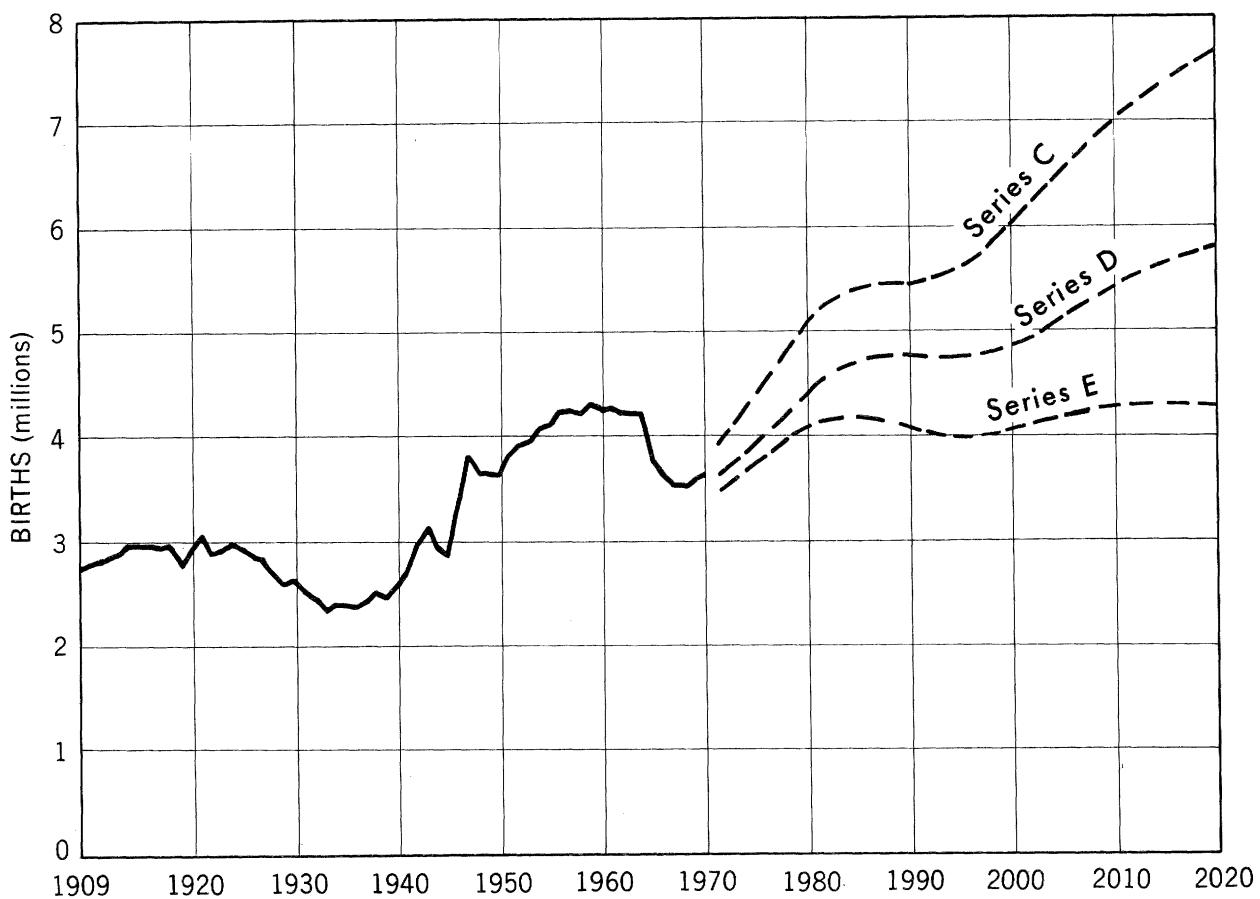


FIGURE 2.—Number of births in the United States, 1909–70, with projections to 2020.

growth in population is now mostly determined by the number of births (1).

In this century the number of births in the United States has undergone some wide swings (fig. 2). These swings will lead to unprecedented changes in the age composition of the population for the remainder of this century.

One of the noteworthy events insofar as this study is concerned was the decline in births that occurred from 1925 to 1933 when births fell from almost 3 million to only 2.3 million. An enormous increase in births followed as the "war baby" boom raised births from under 2.5 million in 1939 to over 4.3 million in 1957. A sharp decline started in 1962 and continued through 1968 when births totaled 3.5 million. A recovery in the number of births is expected in the 1970's as the "war babies" reach child-bearing ages. Even the lowest population projection in the latest Bureau of Census series (35), with a fertility rate declining to the level of exact replacement after the age structure stabilizes, projects annual births to reach 4.1 million by 1980. At recent birth rates, about 4.5 million births are projected to occur annually by 1980.

Future population may be projected from an appropriate model of births, mortality, and net immigration. The Census Bureau has constructed such a model, and its output—annual projections of population by age group for the period 1970 to 2020—is used as input for the model in this study (35). A complete discussion of the assumptions and methodology used in making the projections is contained in that report.

The Census Bureau report presents four series of population projections based on four different assumptions of fertility or birth rates. The four Census series are based on the assumptions that the fertility rate, i.e., the average number of children that women will bear during a lifetime, will be 3.10, 2.78, 2.45, and 2.11, respectively. One set of age-sex specific mortality rates and net immigration rates are used for all series since mortality and immigration is assumed to be 400,000 persons annually.

In this study the three lower Census series (C, D, and E) are used. These are referred to as series 1, 2, and 3. The effect of alternative fertility assumptions is reflected quickly in the projection of total population, but the effect on the population age groups over

18—the source of nearly all household formation—as shown below is delayed until about 1990 (see also Appendix tables 1-3).

Year	Total population (Millions)	Population 18 and older (Millions)
1920	106.5	66.8
1930	123.2	80.1
1940	132.6	91.8
1950	152.3	105.0
1960	180.7	115.8
1970	205.4	134.6
Projections		
1980		
Series 1	232.4	158.8
Series 2	227.5	158.8
Series 3	225.5	158.8
1990		
Series 1	266.3	177.7
Series 2	254.7	176.9
Series 3	247.7	176.6
2000		
Series 1	300.8	202.4
Series 2	280.7	196.3
Series 3	266.3	193.6
2010		
Series 1	341.0	231.7
Series 2	307.4	219.0
Series 3	283.7	210.7
2020		
Series 1	386.0	261.3
Series 2	336.9	239.3
Series 3	299.2	223.5

Eight age classes are distinguished as significant in this study. They are: 15-19, 20-24, 25-29, 30-34, 35-44, 45-54, 55-64, and 65+. Prior to 1990 the population changes in the significant age classes from one decade to the next will reflect past fluctuations in births. The population bulge that occurred between 1940 and 1960 will be especially important (table 1). In 1960-70 this bulge consisted of people 10 to 30 years of age; by 1980-90 it will be ages 30 to 50 (fig. 3).

Nondemographic variables are also important in determining the level of household formation (17). The influence of these variables is reflected in headship, the proportion of the population that heads a separate household. These variables may be classified as economic, social, and institutional.

A headship curve which describes the relation of headship to age has a well-defined shape (fig. 4).

Typically, it rises abruptly from age 20 until age 30, where it levels off at just under 50 percent. Most people by this time are married and live together in separate households. Headship then rises slowly until late middle age and after this increases moderately as death and separation produce more single-person households. Headship increases until about two-thirds of the population in their late seventies have separate households. Headship declines rapidly after age 80 as individuals no longer are able to maintain separate households. In the model this last decline in headship for the very old is lost because of the aggregation of all over age 64.

In this study headship rates for 1955-70 were calculated from estimates of households and population by age class. Estimates were made from the decennial census of 1960. Annual estimates of households by age class are available beginning in 1954 (42). However, the annual series for households has a high variance suggesting that an average of several years be used.

A major determinant of headship is the level and distribution of disposable personal income (22, 28). From 1930 to 1940 per capita disposable personal income increased little and headship remained virtually unchanged (table 1). The war-induced housing shortage of the 1940's restricted headship during that decade. But over the past 20 years disposable personal income has grown steadily. As income grew, headship also increased but the rate of growth slowed in the 1960's as headship moved toward a saturation level where all couples, individuals, and groups who desired separate quarters had them. The greatest increase was among the younger and older age classes.

In the future, headship must approach some upper limit. Thus if 86 percent of the population is living as couples and the remaining 14 percent as singles, then the maximum headship rate would be 57 percent. In fact, headship for the 45 to 54 year old group increased from 49 percent in 1950 to 53 percent in 1958 and then dropped off to 52 percent in the 1960's.

Headship projections in this study are related to alternative rates of growth in the gross national product, which serves as a proxy for disposable personal income changes, since growth of disposable personal income and GNP are highly correlated (9). Although further elaboration is in order from this rudimentary approach to take into account social and institutional factors, the important step is to make headship projections in the context of an income assumption.

A regression analysis of headship of the population 18 and older (H) and disposable personal income (DPI) per person 18 and older was done for the period 1930-70, omitting the war-influenced years of 1942-46. An inverse relation was assumed for DPI

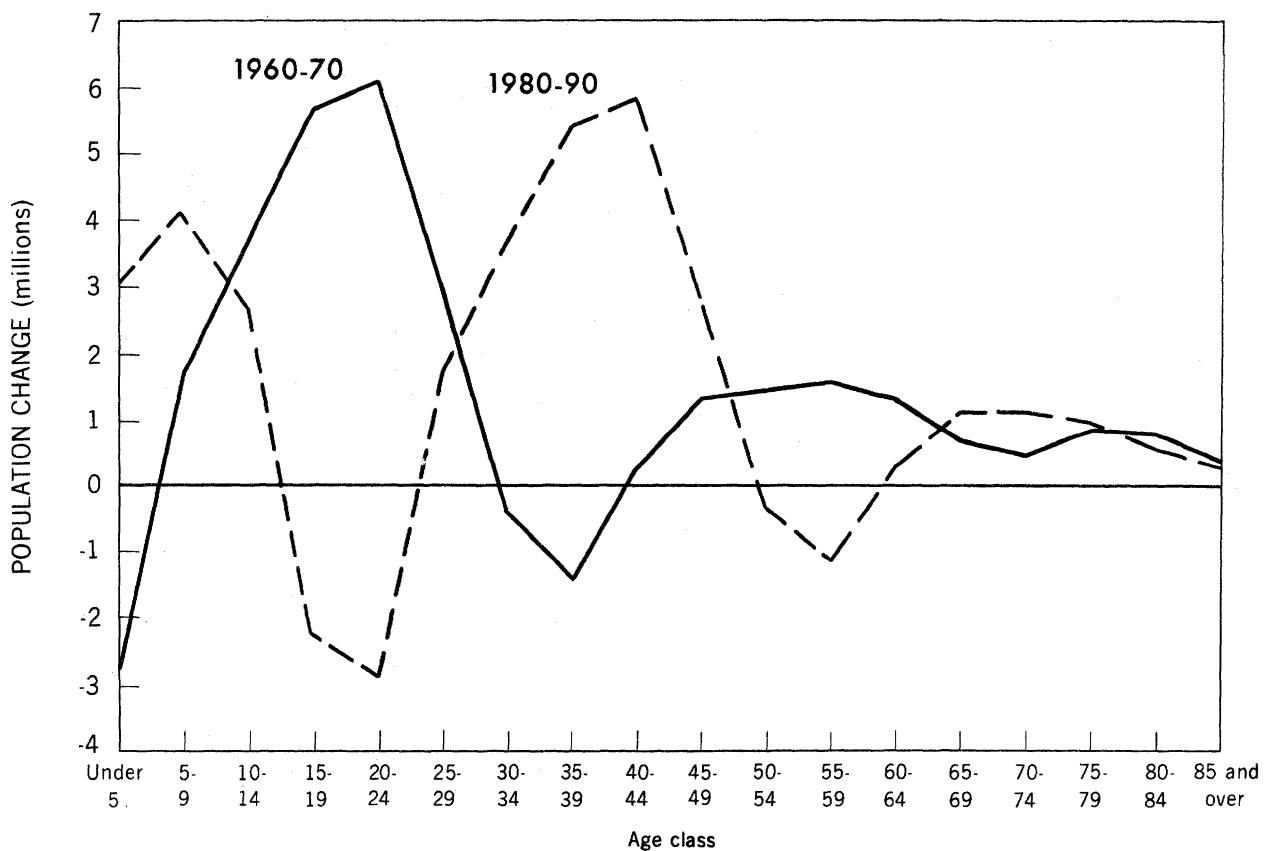


FIGURE 3.—Population change by age class within the decade 1960–70, with projections (series 2) for the decade 1980–90.

per adult. The regression relationship was

$$H = 0.539 - 303.88 \left(\frac{\text{DPI}}{\text{POP 18 and older}} \right)^{-1}$$

$$R^2 = 0.8325$$

Headship in this case asymptotically approaches the level of 0.539 as disposable personal income increases and at higher levels the effect of DPI per adult on headship becomes very small (fig. 5).

For the projection period 1971 to 2020, three alternative assumptions are made about growth in gross national product (and disposable personal income) and headship. These series are designated series 1, 2, and 3. The assumed annual rates of growth in GNP are, respectively, 4.8, 4.2, and 3.6 percent. At these high economic growth rates, the rate of headship increase is projected to level off for all series as headship moves toward a saturation level (table 2 and Appendix tables 4, 5, and 6) where income is high enough to provide everyone with the opportunity for a separate household. For example, headship has remained virtually constant for the 45–54 year old age group since 1958 even though income has increased at over 4 percent a year. In the long run as income continues to grow, headship will

become more dependent on the life styles and preferences of people and could be above or below the projections shown.

Net household formation is projected to increase in all three series in the 1970's and reach a peak in the early 1980's (table 3, Appendix tables 7, 8, and 9). It is then projected to decline for the rest of the 1980's and into the early 1990's as the sharp decline in births of the 1960's has its effect. The range of projections for the 1970's and 1980's is not large since the projections of population born before 1970 are the same for all series. After 1990 the series diverge more rapidly as alternative assumptions about future birth rates become increasingly important in determining the number of future households. By 2020 the total number of households is projected to range from 115 million for the low series (series 3) to 135 million for the high series (series 1). In the decade 2010–20 net household formation varies from 8.7 million to 17.2 million, a difference of nearly twofold.

Drastic changes in the age composition of households will also occur (fig. 6, Appendix tables 10–15). Long run fluctuations in the number of households by age class will correspond to long run fluctuation in population by age class. The decline of births in

TABLE 1.—Population, headship, gross national product, and disposable personal income in the United States by decade, 1920–70

Year	Total population ¹	Population 18 and older ¹	Households ¹	Headship for population 18 and older	Disposable personal income in 1967 prices	Gross national product in 1967 prices	Per capita disposable personal income in 1967 prices for population 18 and older	Per capita gross national product in 1967 prices for population 18 and older
	Millions	Millions	Millions	Percent	Billion dollars	Billion dollars	Dollars	Dollars
1920	106.5	66.8	24.5	36.7	N.A.	160.5	N.A.	2,400
1930	123.1	80.1	30.3	37.8	159.1	215.8	1,990	2,690
1940	132.1	91.8	35.2	38.3	190.3	267.1	2,070	3,970
1950	152.3	105.0	43.3	41.8	285.6	417.8	2,720	3,970
1960	180.7	116.1	53.0	45.6	398.3	573.4	3,350	4,950
1970	205.4	134.6	63.3	47.0	606.2	851.6	4,503	6,330

Annual rate of change within decade							
Decade	Population 18 and older	Headship	Per capita disposable personal income for population 18 and older	Per capita gross national income for population 18 and older			
	Percent	Percent	Percent	Percent			
1920–30	1.8	0.3	N.A.	1.2			
1930–40	1.4	.1	0.9	.8			
1940–50	1.4	.9	2.8	3.2			
1950–60	1.0	.9	2.1	2.2			
1960–70	1.5	.3	3.0	2.5			

¹ As of July 1.

Sources: Total Population, 1920–1970—U.S. Department of Commerce, Bureau of the Census, Curr. Pop. Reps. Ser. P-25, No. 442, 1970.

Population 18 and older: 1920–1940—U.S. Department of Commerce, Bureau of the Census, Curr. Pop. Reps. Ser. P-25, No. 311, 1965; 1950–1960—Curr. Pop. Reps. Ser. P-25, No. 310, 1965; 1970—Curr. Pop. Reps. Ser. P-20, No. 218, 1971.

Households: 1920–1950—U.S. Department of Commerce, Bureau of the Census, *Historical Statistics of the United States Colonial Times to 1957*, 1960; 1960–1970—Curr. Pop. Reps. Ser. P-20, No. 218, 1971.

Gross National Product: 1920—U.S. Congress Joint Committee on the Economic Report, *Potential Economic Growth of the United States During the Next Decade*, 83d. Cong. 2d sess. 1954; 1930–1970—*Economic Report of the President*, 1971.

Disposable Personal Income: 1930–1970—*Economic Report of the President*, 1971.

Note: Household data was adjusted from March 1 to July 1. Gross national product was converted to 1967 prices from 1939 prices for 1920, and gross national product and disposable personal income were converted from 1958 prices to 1967 prices for 1930–1970.

1925–35 and 1962–68 along with the huge increase in births in 1940–60 combine to have a dramatic impact on the age composition of population and households. Net household formations in the next 50 years will be largely concentrated in those age groups who were born in 1940–60. For example, in the 1960's the number of households under 30 years increased by 3.5 million after increasing by less than a million in the 1950's. At the same time the number of households aged 30–44 remained virtually unchanged in the 1960's after increasing by over 2 million in the 1950's. Households 45 years and older increased by 6.6 and 6.8 million in the two decades.

Total net household formation was 10.1 million in the 1950's and 10.4 million in the 1960's.

In the 1970's net household formation is projected to increase by between 12 and 13.3 million (table 3). Population change alone assuming 1970 headship rates will account for 10.8 million of the projected increase; the remaining increase is due to increased headship rates. The medium series projects net household formation to increase at a rate of 1.21 million a year for the first half of the decade and at 1.35 million a year for the second half.

For 1971–75 over 70 percent of the net increase in households is projected to be under 35 years of age

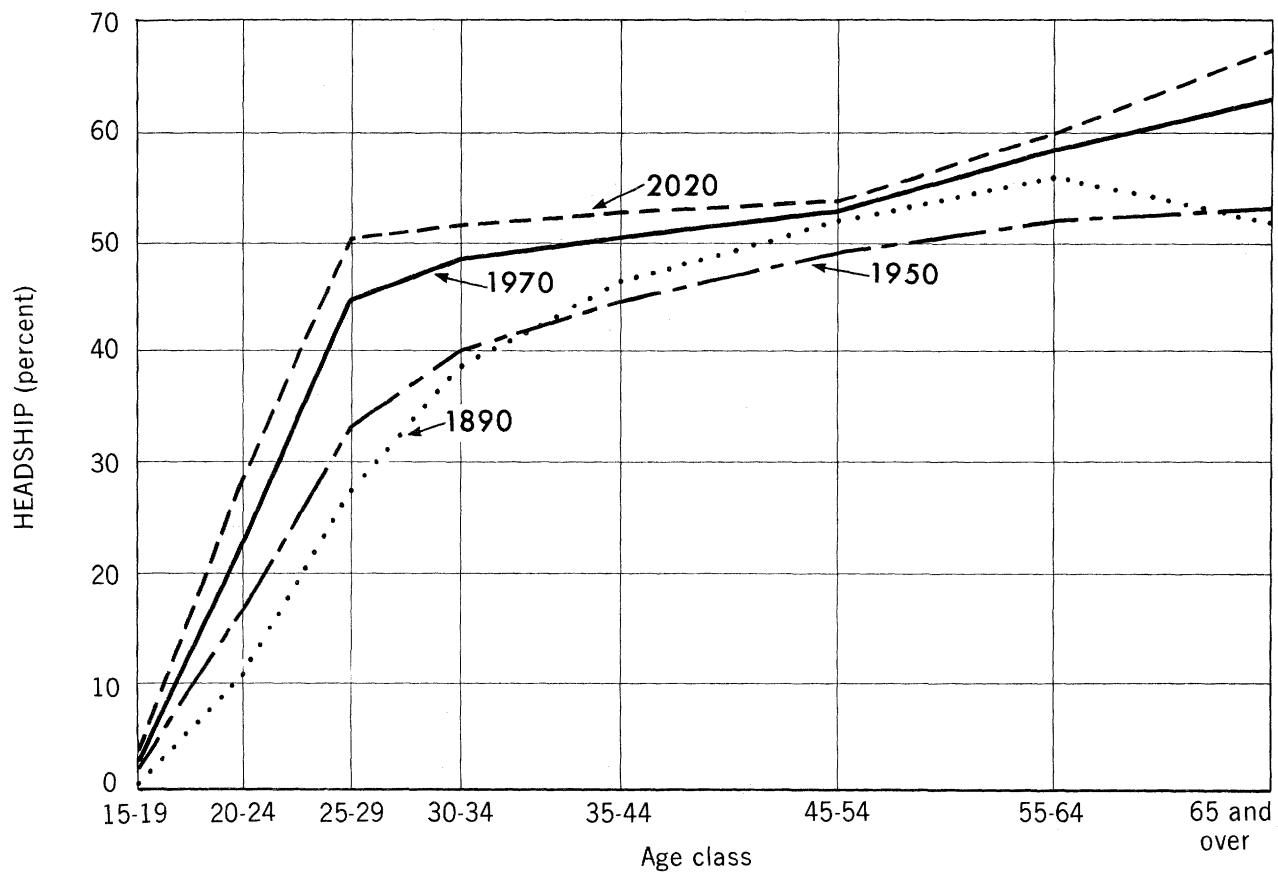


FIGURE 4.—Headship rates by age class for 1890, 1950, and 1970, with projections for 2020 (series 2).

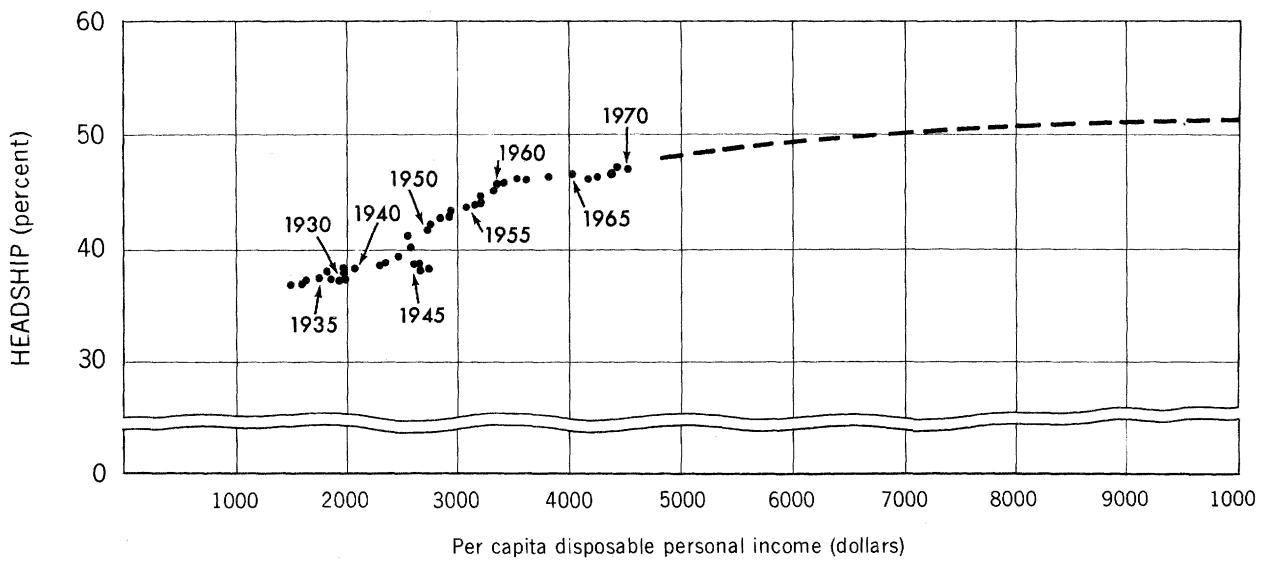


FIGURE 5.—Headship in relation to per capita disposable personal income (in 1967 dollars) for population 18 years of age and older.

TABLE 2.—*Headship rates in the United States by age class for selected years 1890 to 1970, with projections to 2020*

(Percent)

Year	Age class							
	15-19	20-24	25-29	30-34	35-44	45-54	55-64	65+
1890-----	0.6	10.7	27.3	38.5	46.5	52.0	56.0	51.8
1930-----	.7	11.7	(32.8)	44.9	50.4	53.7	53.2	
1940-----	.6	11.3	28.2	37.7	44.6	50.7	54.0	56.8
1950-----	1.2	16.1	32.9	39.9	44.8	49.2	52.0	52.8
1955-----	1.6	19.0	35.7	42.8	47.5	51.1	54.4	55.1
1960-----	1.8	22.1	39.6	45.0	48.4	52.6	56.2	56.1
1965-----	1.6	22.9	42.4	46.1	49.1	52.2	56.4	60.4
1970-----	1.8	23.1	44.6	48.4	50.4	52.8	58.3	62.9
Projections								
Series								
1975 1-----	1.95	24.6	45.9	49.3	51.1	53.1	58.8	64.0
2-----	1.90	24.1	45.8	49.2	51.0	53.0	58.7	63.8
3-----	1.85	23.6	45.3	48.9	50.7	52.9	58.4	63.5
1980 1-----	2.10	25.9	47.1	50.1	51.7	53.3	59.2	64.9
2-----	2.00	25.0	46.7	49.8	51.5	53.1	59.0	64.5
3-----	1.90	24.4	46.2	49.3	50.9	53.0	58.5	64.0
1985 1-----	2.25	27.0	48.1	50.7	52.2	53.5	59.5	65.7
2-----	2.10	25.8	47.5	50.3	51.9	53.2	59.2	65.2
3-----	1.95	25.1	46.9	49.5	51.0	53.1	58.6	64.5
1990 1-----	2.40	27.9	49.0	51.2	52.6	53.6	59.6	66.3
2-----	2.20	26.5	48.2	50.7	52.2	53.3	59.3	65.8
3-----	2.00	25.7	47.5	49.6	51.1	53.2	58.7	64.9
1995 1-----	2.55	28.6	49.7	51.6	52.9	53.7	59.7	66.9
2-----	2.30	27.1	48.8	51.0	51.0	53.4	59.4	66.3
3-----	2.05	26.1	48.0	49.7	49.7	53.3	58.8	65.2
2000 1-----	2.70	29.1	50.2	51.9	53.1	53.8	59.8	67.3
2-----	2.40	27.6	49.3	51.2	52.5	53.5	59.5	66.7
3-----	2.10	26.5	48.2	49.8	51.3	53.4	58.9	65.4
2005 1-----	2.85	29.5	50.6	52.1	53.2	53.9	59.9	67.6
2-----	2.50	28.0	49.7	51.3	52.6	53.6	59.6	67.0
3-----	2.15	26.7	48.7	49.0	51.4	53.5	59.0	65.5
2010 1-----	3.00	29.9	50.9	52.2	53.3	54.0	60.0	67.8
2-----	2.60	28.3	50.0	51.4	52.7	53.7	59.7	67.2
3-----	2.20	26.8	48.8	50.0	51.5	53.5	59.1	65.6
2015 1-----	3.15	30.3	51.1	52.3	53.4	54.1	60.1	67.9
2-----	2.70	28.5	50.2	51.5	52.8	53.8	59.8	67.3
3-----	2.25	26.9	49.0	50.1	51.6	53.5	59.2	65.7
2020 1-----	3.30	30.7	51.3	52.4	53.5	54.2	60.2	68.0
2-----	2.80	28.6	50.3	51.6	52.9	53.9	59.9	67.4
3-----	2.30	27.0	49.0	50.2	51.7	53.5	59.3	65.8

Sources: 1890-1950—Campbell (6); 1960—Derived from the U.S. Department of Commerce, Bureau of the Census, *Census of Population: 1960. Detailed Characteristics*, United States Summary Final Report PC(1) = 1D, 1963; 1955, 1965, and 1970—Derived from population and household data, U.S. Department of Commerce, Bureau of the Census, Curr. Pop. Reps. Ser. P-25, No. 310, No. 381, 1967, and No. 448, 1970, and Curr. Pop. Reps. Ser. P-20, *Household and Family Characteristics* for 1954-1970.

TABLE 3.—Number of households in the United States in selected years and average increments, 1960 to 1970, with projections to 2020

(Thousands)

Year	Total households	Average increment in households from previous period				
1960	1 52,799	959				
1965	1 57,251	890				
1970	1 62,875	1,125				
Projections ²						
	Series 1	Series 2	Series 3	Series 1	Series 2	Series 3
1975	69,573	69,294	68,894	1,263	1,207	1,127
1980	76,593	76,022	75,293	1,404	1,346	1,280
1985	83,679	82,841	81,772	1,417	1,364	1,296
1990	89,747	88,668	87,267	1,214	1,165	1,099
1995	95,477	93,658	91,782	1,146	998	903
2000	102,120	98,930	96,369	1,329	1,054	917
2005	109,893	104,958	101,263	1,555	1,206	979
2010	118,276	111,483	106,418	1,678	1,304	1,031
2015	126,776	118,021	111,053	1,700	1,308	927
2020	135,434	124,149	115,100	1,732	1,226	809

¹ As of March 1.

² As of July 1.

Source: 1960-70—U.S. Department of Commerce, Bureau of the Census, Curr. Pop. Reps. Ser. P-25, No. 394, 1968, and Ser. P-20, No. 218, 1971.

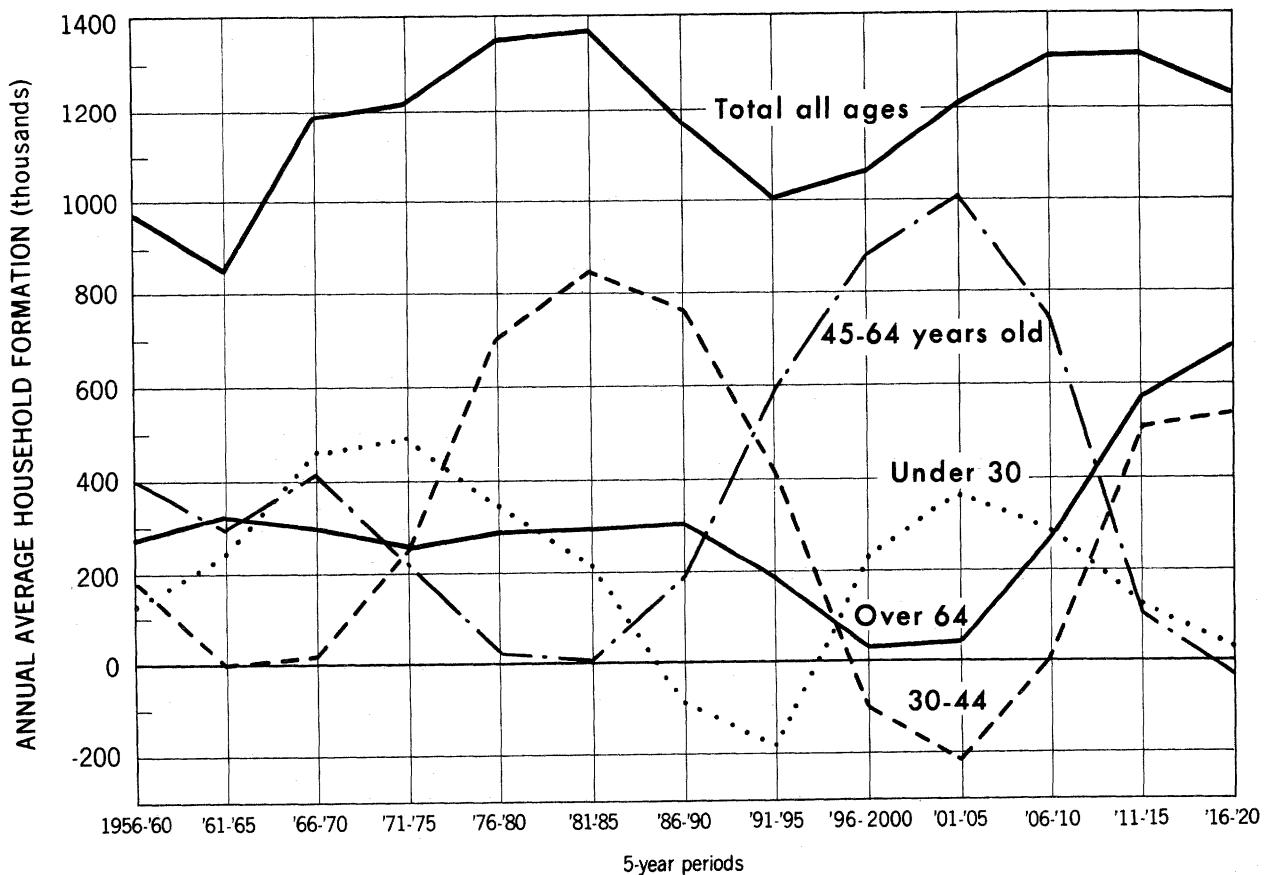


FIGURE 6.—Net annual household formation by selected age groups for 5-year periods 1956-70, with projections to 2020.

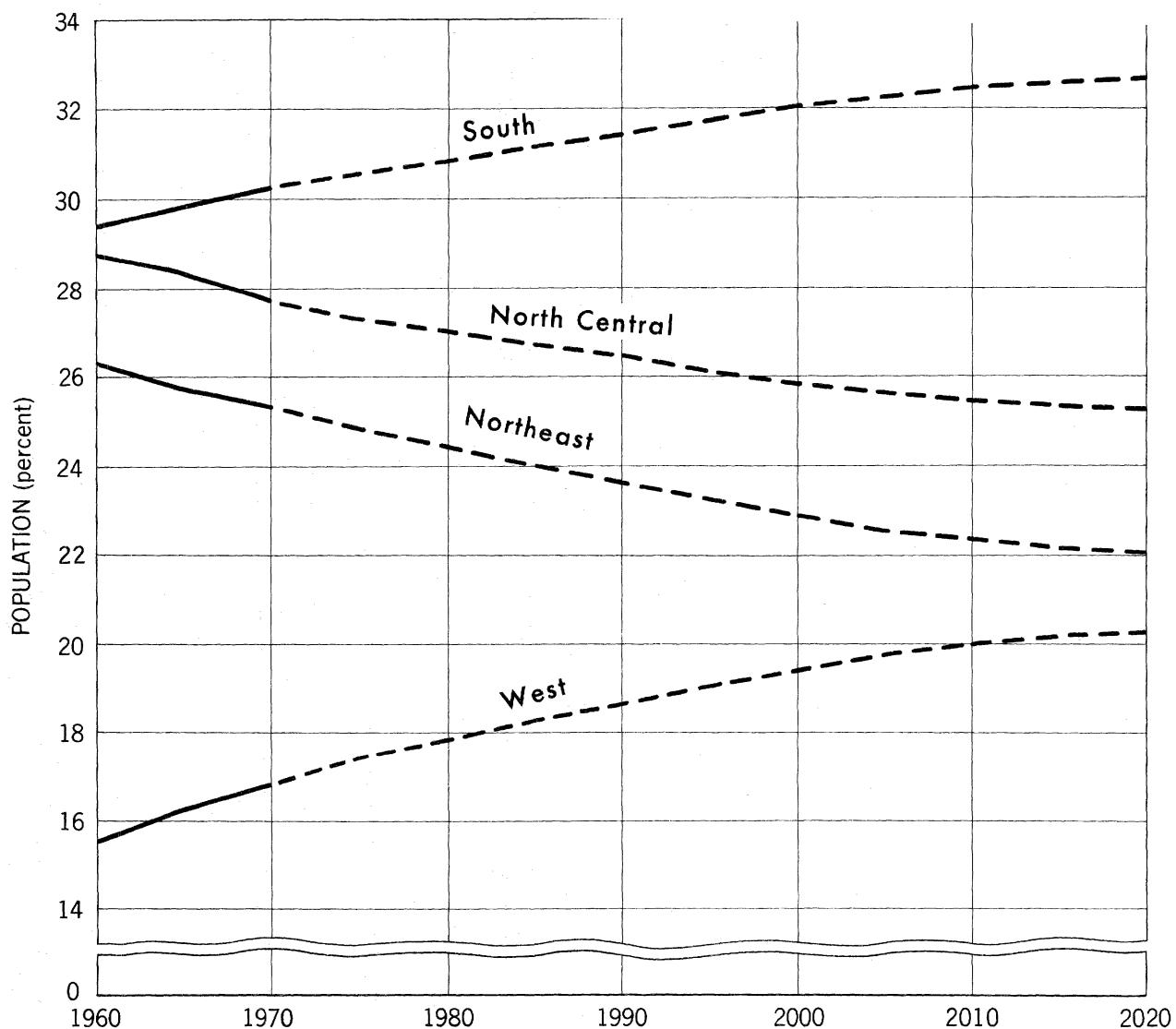


FIGURE 7.—Regional distribution of population 18 years of age and older, 1960-70, with projections to 2020.

with over 50 percent in ages 25-34. The number of households of ages 35-54 will remain virtually unchanged. In the second half of the 1970's the growth in households will be concentrated in the population in their 30's. The 1970's may be characterized as the decade of the young married as 6 million or nearly half of the projected increase in households for the decade will be of ages 25-34.

In the 1980's net household formation is projected to be between 12 and 13.2 million for the low and high series. The time-path of household formation will be just the opposite of the 1970's. Net household formation is projected to reach a peak in the 1980's and decline for the remainder of the decade. The medium series projects net household formation to reach an annual rate of 1.36 million for 1981-85 and to decline to 1.17 million a year for the second half of the decade.

The age composition of households also is projected to change considerably in the 1980's. In the first half of the 1980's over 75 percent of the projected increase in households will be of ages 25-44. The number of households headed by individuals under 25 and 45-64 will increase little in total. For 1986-90 the sharp decline in births of the 1960's will result in a projected absolute decline in households for those under 30 years of age. Meanwhile almost 50 percent of the net increase in households will be for persons of ages 35-44. Age composition in the 1980's will be just the reverse of the 1960's when there was a large increase in households under 30 and no increase in households of ages 35-44. The 1980's may be characterized as the decade of the middle-aged.

In the 1990's the effects of the population growth assumption becomes increasingly significant and the range of projections widens considerably. Net

household formation is projected to be between 12.4 and 9.1 million for series 1 and series 3 respectively. In the first half of the 1990's net household formation is projected to reach a low point for all three series. The medium series projects household formation to decline to a rate of 1 million households a year. Households under 30 will also again decline in total number. An upswing in household formation is projected for the last half of the 1990's. The magnitude of the upswing will depend on the number of births in the 1970's.

The medium projection for net household formation reaches an annual rate of 1.05 million for 1996-2000. All of this increase will be composed of households over 35 years of age and over 50 percent will be concentrated in the 45-54 year old age group. Households under 35 years of age are projected to decrease in total number. The number of households 65 and older will increase little in the late 1990's and early 2000's as the decline in births in 1925-35 has its impact.

After the year 2000 the range of household projections increases considerably. For the period 2001-10 households are projected to increase by 16.2 million for series 1 and by 10 million for series 3. The difference widens to 17.2 million for the high series versus 8.7 million for the low series for the period 2011-20. The differences between the series is largely due to the cumulative effects of alternative assumptions about population growth after 1970. The increase in total households is projected to be concentrated in the 55-64 year old age group for 2001-10 and in the 65 and over age group for 2011-20. A projected increase in the number of births for 1970-85 will produce a corresponding increase in the number of households born in those years.

The magnitude of the increase will depend upon the rate of population growth assumed after 1970. The population growth assumption will have a great impact by the year 2020. For example, for the period 2011-20 the series 3 projections indicates an absolute decline in the total number of households under 55 years of age and an increase of nearly 9 million in households 55 years and older. Series 1 shows an increase of 9.2 million for households 55 and older and an increase of 8 million in the ages under 55. A net decline is projected for the number of households aged 45-54 while the project increase in households aged 35-44 varies from nearly 6 million for series 1 to 2.4 million for series 3.

Projections of regional population 18 years of age and older prepared by the Bureau of the Census (38), adjusted for variation in household size, are used to distribute projected net household formations by region (Appendix tables 16-27). In the 1960's, the South and West increased their share of the population. These regions are projected to continue to increase their share of the population for the period

1970-2020, but the rate of growth slows after 2000 (fig. 7). The differences in regional population growth largely reflect internal immigration. A change in the migration rates between regions will, of course, affect regional housing demand but will have little effect on the national totals.

Vacancies

The second important component of housing demand is vacancies. Vacancies may occur for many reasons, but two broad categories of vacant units can be distinguished: (1) those units available for sale or rent in the market and (2) those units held vacant for other reasons and not available in the housing market.

The first category includes the inventory of new and used homes which are necessary for an orderly exchange of housing units and the migration of people, and units built or held on speculation of future demand. Available vacancies in recent years have ranged from a war-induced low of 1.6 percent in 1950 to 3.5 percent during the early 1960's.

Changes in credit are one cause of the fluctuation in available vacancies (16, 17). Credit may have several dimensions such as its cost (i.e., the rate of interest), the availability of funds, and the terms of debt (31). Vacancy is a lagged variable with respect to credit because of the length of the construction process. Also important are the level of available vacancies in the previous period and the rate of change of household formation. Builder expectations also can play an important role in determining the level of vacancies, especially in relation to the factors mentioned above. Other variables which could be significant are rents, prices, and the cost of construction.

Although the rate varies from time to time, in the longrun the level of available vacancies is a relatively unimportant component of the total housing demand since it will normally fluctuate between 2 and 4 percent of the total stock (table 4).

The second category of vacancy is the unavailable vacant housing unit (table 4). The most important type of vacancy in this group is the second home. Housing units are also vacant because they are awaiting occupancy after being sold or rented; or for a variety of other reasons, such as speculation, lack of buyers in a particular location, or dilapidation. For analytical reasons, unavailable vacancies have been divided between second homes and other miscellaneous vacancies.

Second homes have been the object of much discussion and also much confusion. For example, there has been substantial differences in estimates of the size of the second home market and its effect on total housing demand. Estimates of the number of second homes have ranged from 2.6 to 5.0 percent of

TABLE 4.—*Housing vacancy rates in the United States by region, 1950–70, with U.S. projections to 2020*

(Percent)

United States				Northeast			North Central			South			West		
Year	Total	Available	Unavailable	Total	Available	Unavailable	Total	Available	Unavailable	Total	Available	Unavailable	Total	Available	Unavailable
1950 ¹ —	6.9	1.6	5.3	6.8	1.1	5.7	5.6	1.1	4.5	7.5	2.0	5.5	8.3	2.7	5.6
1955—	8.3	2.4	5.9	7.8	1.4	6.4	5.9	1.8	4.1	9.2	3.2	6.0	11.8	4.0	7.8
1956—	8.8	2.7	6.1	8.4	1.7	6.7	6.8	2.2	4.6	10.1	3.4	6.7	10.9	3.9	7.0
1957—	8.9	2.4	6.5	8.8	1.7	7.1	7.6	2.1	5.5	10.2	2.8	7.4	9.1	3.4	5.7
1958—	9.8	2.9	6.9	9.7	1.8	7.9	8.9	3.0	5.9	11.0	3.3	7.7	9.1	3.4	5.7
1959—	10.0	3.0	7.0	9.5	2.0	7.5	8.8	2.8	6.0	11.6	3.7	7.9	10.0	3.7	6.3
1960—	10.1	3.4	6.7	9.5	2.3	7.2	9.2	3.2	6.0	11.4	3.9	7.5	10.2	4.7	5.5
1960 ¹ —	9.1	3.4	5.7	8.6	2.4	6.2	8.4	3.0	5.4	9.7	4.0	5.7	9.8	4.6	5.2
1961—	10.2	3.6	6.6	9.7	2.4	7.3	9.3	3.2	6.1	11.6	4.3	7.3	10.2	4.7	5.5
1962—	10.1	3.5	6.6	9.6	2.2	7.4	9.2	3.4	5.8	11.5	4.0	7.5	9.8	4.4	5.4
1963—	10.3	3.5	6.8	9.4	2.3	7.1	9.9	3.4	6.5	11.3	4.0	7.3	10.3	4.8	5.5
1964—	10.3	3.5	6.8	9.9	2.4	7.5	9.5	3.0	6.5	11.3	3.9	7.4	10.5	5.3	5.2
1965—	10.5	3.5	7.0	10.1	2.5	7.6	9.1	2.8	6.3	11.7	3.9	7.8	11.2	5.7	5.5
1966—	10.1	3.3	6.8	10.2	2.4	7.8	9.2	2.4	6.8	11.0	3.6	7.4	10.8	5.3	5.5
1967—	9.9	2.9	7.0	10.1	2.2	7.9	8.9	2.2	6.7	10.6	3.4	7.2	10.1	4.4	5.7
1968—	9.3	2.5	6.8	9.3	1.7	7.6	8.5	2.1	6.4	10.0	3.1	6.9	9.0	3.3	5.7
1969—	9.1	2.3	6.8	9.2	1.4	7.8	8.7	2.1	6.6	9.9	2.8	7.1	8.2	2.8	5.4
1970—	8.8	2.3	6.5	9.0	1.3	7.7	8.5	2.2	6.3	9.6	2.8	6.8	7.7	2.7	5.0

U.S. projections

Year	Series 1			Series 2			Series 3		
	Total	Available	Unavailable	Total	Available	Unavailable	Total	Available	Unavailable
1975—	10.2	3.2	7.0	10.1	3.2	6.9	10.0	3.2	6.8
1980—	10.6	3.4	7.2	10.4	3.4	7.0	10.2	3.4	6.8
1985—	11.1	3.5	7.6	10.7	3.4	7.3	10.4	3.5	6.9
1990—	11.5	3.5	8.0	11.0	3.5	7.5	10.6	3.5	7.1
1995—	12.0	3.5	8.5	11.5	3.5	8.0	10.9	3.5	7.4
2000—	12.7	3.5	9.2	12.0	3.5	8.5	11.2	3.5	7.7
2005—	13.3	3.5	9.8	12.4	3.5	8.9	11.5	3.5	8.0
2010—	13.8	3.5	10.3	12.8	3.5	9.3	11.7	3.5	8.2
2015—	14.2	3.5	10.7	13.1	3.5	9.6	11.9	3.5	8.4
2020—	14.5	3.5	11.0	13.3	3.5	9.8	12.0	3.5	8.5

¹ Estimate from Dicennial Censuses, all other estimates from Current Housing Report Series H-111.

Sources: 1950—U.S. Department of Commerce, Bureau of the Census, *Census of Housing: 1950*, Vol. I, Part I; 1955–56—U.S. Department of Commerce, *Construction Review*, Vol. 3(3), March 1957; 1957–58—Vol. 3(2), Feb. 1959; 1959—Vol. 6(2), 1960; 1960—Vol. 7(2), Feb., Vol. 15(3), 1969; 1969–70—Vol. 16(12), Dec. 1970, and Current Housing Reports Series H-111, No. 63, 1971.

the total housing stock. A special survey conducted by the Census Bureau and the Forest Service indicated the lower figure (33). Surveys by several organizations report the higher figures (15, p. 2; 34). These differences arise from the definition of a second home and from neglecting to consider the role of exchange of existing second homes.

Second home demand is related to age and income. According to the Census survey only 8 percent of the household heads who possess a second home are under 35, while 24 percent of all household

heads are under 35. The greatest occurrence of second home ownership is in ages 45–64. The level of disposable personal income is an important factor in determining the level of demand for second homes. Other factors could include leisure time, availability of credit, and the cost of construction.

Other miscellaneous vacancies are a relatively unimportant and stable part of overall vacancies. It is assumed in this study that they will move in the same direction as available vacancies reflecting the overall condition of the housing market.

With consideration of the above factors, three assumptions about total vacancy rates are made for the series 1, 2, and 3 projections (table 4; Appendix tables 28-30). The three series are related to alternative assumptions on income growth and demand for second homes.

Series 1 assumes a high rate of growth in the gross national product and an increase in vacancies to 14.5 percent by 2020. Series 2 assumes GNP will grow at its estimated present potential rate and a rise in vacancies to 13.3 percent by 2020. Series 3 assumes a more moderate GNP growth rate with vacancies increasing to 12.0 percent. The projections are for average longrun vacancies and shortrun fluctuations are likely to occur about these longrun trends.

By type, the available housing vacancy rate is projected to rebound from the low level of 2.3 percent in 1969 and 1970 to 3.5 percent for all three series. The second major type of vacancy, the unavailable vacant unit including second homes, is projected to rise by 2020 to 11.0 percent for series 1, 9.8 percent for series 2, and 8.5 percent for series 3. The majority of second home buyers are between 40 and 60. This age group will increase very little in number until the late 1980's, when a substantial upswing in second home demand is likely to occur.

Vacancy rates within regions have followed the same general trends as the national rates in the past 20 years. But considerable differences in rates have existed among regions. The vacancy rates have been the highest in the South and the lowest in the North Central region. The widest swings in rates have been in the West. For 1956-70 the quarterly vacancy rate series of the Bureau of the Census (41) has averaged 9.8 percent for the United States; while regional vacancy rates have averaged 10.9 percent for the South, 9.8 percent for the West, 9.5 percent for the Northeast, and 8.8 percent for the North Central region.

In the last several years the regional differences have diminished except for the West whose volatile rate dropped sharply from 11.2 percent in 1965 to 7.7 percent in 1970 as compared with a decline in the national rate from 10.5 percent to 8.8 percent. In the future it is assumed that a moderate difference in regional rates will continue (Appendix tables 16-27). The Northeast vacancy rate is projected to be 0.2 percent below the United States rate and the North Central rate 0.5 percent below the national rate. The South's rate is projected to remain 0.8 percent above the national rate until 1990 and 0.7 percent above after 2000. The vacancy rate for the West is projected to increase to the national level by 1980 and to remain the same as the national rate thereafter.

Mobile homes are an important source of second homes which are not included in the vacancy rates because vacant mobile homes have not been counted in the Census of Housing. In this study it is assumed

that 20 percent of the shipments of new mobile homes will not be used as primary residence, but rather for second homes or other purposes. One study indicated one of eight mobile homes used as a second home (21). Accordingly, actual vacancies rates including mobile homes will be higher than indicated vacancy rates. If mobile homes are included, the overall vacancy rate rises to over 16 percent for series 2 by 2020.

Replacement

The third important component of housing demand is the number of housing units required to replace existing units which are withdrawn from the housing inventory. Each year a substantial number of units are lost from the housing stock and replacement of these losses has been constituting approximately 30 to 40 percent of the yearly housing demand (33).

Estimates of future replacements are difficult to make because of the lack of data on past losses. Housing units may be lost from fires, floods, storms, or other disaster. Units may be removed by demolition either by government or private action. Other units may be abandoned and left to deteriorate. Conversions may make two or more units from existing units. Conversely, fewer units may result from merger of existing units. Nonresidential structures may also be adapted for residential purposes.

This study is concerned with the net replacement rate of housing units. Units added each year from conversions are subtracted from the gross number of units removed from the housing stock to obtain the net number of removals. The net replacement rate is the percentage of the total housing stock replaced by new units in a given year.

The net replacement rate is dependent on many factors. The age and characteristics of the existing housing stock is very important. A high rate of economic growth can be important in stimulating alternative land uses and in increasing the level of personal income and the volume of replacements. The level of available vacant units which reflects the general availability of housing can also affect removals. When housing is plentiful more units can be withdrawn from the market. Government action to rehabilitate deteriorating units may reduce the need to replace these units with new ones. However, government action also has been one of the most important factors in removing housing units through urban renewal and highway construction programs.

The net replacement demand for housing may be considered in the short run and long run. In the short run the government may set a goal of removing all substandard housing units. In this case the replacement requirement would consist of replacing or rehabilitating the backlog of units not meeting the minimum standard of decent housing. The relative

TABLE 5.—*Net conventional¹ housing replacement rates in the United States by region for 1950–56, 1957–59, and 1960–70*

(Percent)

Period	U.S.	Northeast	North Central	South	West
1950–56...	0.46	0.27	0.33	0.76	0.49
1957–59...	.85	.48	.65	1.27	1.03
1960–70...	.98	.50	.93	1.33	1.00

¹ Conventional housing includes all housing except mobile homes.

Sources: 1950–59—U.S. Department of Commerce, Bureau of the Census, *U.S. Census of Housing: 1960*, Vol. IV *Components of Inventory Change*, 1963(37); 1960–70—Derived from data published by U.S. Department of Commerce, Bureau of the Census, *U.S. Census of Housing: 1970*, Advance Depart. HC(U1)-1, *United States General Housing Characteristics*, 1971; and from housing starts and mobile home shipments for 1960–69 published in *Construction Review*, Vol. 10(8), 1964, Vol. 13(9), 1967, and Vol. 16(10), 1970.

cost of rehabilitating units versus the cost of new construction would be important in determining the level of each activity.

In the long run it is useful to consider the average life of housing units, i.e., the number of years that elapse before half of the housing units built in a particular period have been lost from the housing stock.

In the long run the replacement rate of the housing stock should approximate some average life. If the size of the housing stock remained constant, then the average life will simply be $1/r$, where r is the rate of replacement. If the replacement rate is 1 percent, then the average life is 100 years. For a housing stock

that is growing, its average life may be calculated from the formula (23):

$$n = \frac{\log \left(1 + \frac{g}{r} + \frac{g^2 + gr}{2r} \right)}{\log (1+g)}$$

where

n = average life

g = annual rate of growth of housing stock

r = annual rate of replacement of housing stock

For a housing stock growing at a rate of 1.5 percent a year with a replacement rate of 1 percent a year, the average life would be 62 years.

Some recent estimates have indicated that the average life of mobile homes is around 15 years, much shorter than that of conventional units (29, p. 57). If the mobile home stock grows at an annual rate of 5 percent, this average life would mean a replacement rate of about 5 percent.

The latest available data indicate that the net conventional replacement rates are close to 1 percent (table 5). The three assumed net replacement rates used in this study (table 6) are related to the alternative rates of GNP growth detailed above. Series 1 projects the replacement rates for conventional housing to advance to 1.10 percent and the total rate, including mobile homes, to 1.36 percent. Series 2 assumes the conventional rate to rise to 1.06 percent and the overall rate to 1.30 percent. Series 3 assumes the rates will rise to 1.0 percent and 1.23 percent. Slight variation occurs because of the changing regional distribution of the total housing stock.

The regional replacement rates used in the model are based on the 1960 Census of Housing, Com-

TABLE 6.—*Projections of net housing replacement rates in the United States to 2020*

(Percent)

Year	Conventional replacement ¹			Total replacement ²		
	Series 1	Series 2	Series 3	Series 1	Series 2	Series 3
1975	1.02	.99	.98	1.19	1.15	1.14
1980	1.08	1.02	.98	1.28	1.22	1.18
1985	1.09	1.04	.99	1.31	1.26	1.20
1990	1.10	1.04	1.00	1.32	1.26	1.21
1995	1.10	1.05	1.00	1.32	1.26	1.21
2000	1.10	1.06	1.00	1.33	1.28	1.21
2005	1.10	1.06	1.00	1.34	1.29	1.21
2010	1.10	1.06	1.00	1.35	1.30	1.22
2015	1.10	1.06	1.00	1.36	1.30	1.23
2020	1.10	1.06	1.01	1.36	1.30	1.23

¹ Conventional housing replacement refers to all housing units other than mobile units.

² Total replacement includes mobile units.

TABLE 7.—*Housing type occupancy rates in the United States by age class for 1960, with projections to 2020*

(Percent)

Year	Housing type	Age class							
		15-19	20-24	25-29	30-34	35-44	45-54	55-64	65+
1960	One-unit structures	35.6	46.4	60.0	69.1	73.9	71.8	68.3	67.5
	Multifamily structures	58.3	49.0	37.8	29.3	25.0	27.2	30.6	31.3
	Mobile units	6.9	4.6	2.2	1.6	1.1	1.0	1.1	1.2
2020	One-unit structures	12.7	23.8	40.0	55.0	69.6	68.0	60.9	56.1
	Multifamily structures	64.7	56.6	44.3	34.0	25.0	27.2	31.0	33.3
	Mobile units	22.6	19.6	15.7	11.0	5.4	4.8	8.1	10.6
Incremental occupancy rates									
1970-2020	One-unit structures	0	5.0	25.0	44.5	65.0	62.7	55.2	48.2
	Multifamily structures	70.0	65.0	50.0	37.5	25.0	27.3	31.3	34.8
	Mobile units	30.0	30.0	25.0	18.0	10.0	10.0	13.5	17.0

Source: 1960—Author's estimates based on unpublished data from the one-in-a-thousand sample of population characteristics from the 1960 Census which is available on magnetic tape. U.S. Department of Commerce, Bureau of the Census, *U.S. Census of Housing: 1960*. Public use one-in-a-thousand sample available on magnetic tape released 1963.

ponents of Inventory Change (40) and estimates of net removals based on preliminary results from the 1970 census. Information is provided on replacement demand for the periods 1950 to 1956 and 1957 to 1959 by region and by type of unit. The type of housing unit lost did not vary significantly from the overall mix of the housing stock. But significant differences in replacement rates existed between periods and among regions. It is assumed that these differences will continue in the future.

Mobile homes are considered separately. A mobile home is not included in the housing stock by the Census Bureau when it is not used as a primary residence. Mobile homes are assumed to be withdrawn from use as primary residences at a rate declining from 5 percent of the occupied mobile home stock in 1970 to 4 percent by 2020. By adding mobile home replacement to conventional replacement an overall average replacement was calculated (table 6).

Housing types

The available historical data⁴ indicates that the demand for different types of housing varies systematically with age and income of the household head (2, 15, 30). The demand of one-unit structures—occupancy rate—rises to a peak in the middle-

⁴ Data on housing type occupancy by age of household head is available from the 1960 Census of Population and Housing. Estimates of housing type occupancy were made from the one-in-a-thousand sample of the characteristics of the population of the United States which is available on magnetic tape from the Bureau of the Census.

age groups and declines slightly for the older ages (table 7). On the other hand, multifamily structure occupancy rates are highest among the younger age groups and decline substantially for the middle-age groups. This study and a special survey by the Department of Housing and Urban Development (45) both indicated that mobile homes are also predominantly occupied by younger households.

Trends in the gross or overall demand for different types of housing are a composite of changes in age distribution of households, income, household size, household type, housing preference, relative cost, government actions and other factors. The effect of changes in the age distribution of households is accounted for by considering age-specific groups. The economic and social factors determine trends in demand—occupancy rates—for these age-specific groups. Although the general pattern of demand by age group is known there are no reliable data on historical trends. In the 1960's there was a trend in housing demand to multifamily structures and mobile homes. While much of this trend can be accounted for by changes in age distribution of households, shifts in housing demand—occupancy rates—by age group also occurred. A substantial increase in mobile homes occupancy rates must have taken place and multifamily occupancy rates also appear to have increased moderately.

These shifts in demand by age group are represented by the incremental occupancy rates used in this study. Incremental occupancy rates are estimated for 1969-70 and applied to the annual household increment. They are then used to calculate the overall demand for each type of unit.

The application of these rates to the household in-

TABLE 8.—Annual average housing production in the United States by type of unit, 1961–70, with projections of demand, 10-year averages, to 2020

(Thousand units)

Period	Total, all types	New construction			Mobile units
		All starts	One-unit	Multiunits	
1961–70	1,695.4	1,460.0	909.6	550.4	235.4
Series 1:					
1971–80	2,678.9	2,143.1	1,189.7	953.4	535.8
1981–90	2,911.8	2,347.5	1,519.7	827.8	564.3
1991–2000	3,135.3	2,516.2	1,588.0	928.2	619.1
2001–10	3,916.5	3,030.9	1,721.7	1,309.2	885.6
2011–20	4,331.1	3,349.2	2,013.6	1,335.6	981.9
Series 2:					
1971–80	2,559.6	2,043.2	1,141.8	901.4	516.4
1981–90	2,756.6	2,216.3	1,449.0	767.3	540.3
1991–2000	2,727.8	2,204.1	1,473.0	731.1	523.7
2001–10	3,238.0	2,497.4	1,445.9	1,051.5	740.6
2011–20	3,472.2	2,661.4	1,614.2	1,047.5	810.8
Series 3:					
1971–80	2,432.6	1,938.1	1,087.4	850.7	494.5
1981–90	2,584.1	2,069.2	1,363.1	706.1	514.9
1991–2000	2,435.4	1,968.1	1,360.7	607.4	467.3
2001–10	2,730.1	2,101.7	1,267.7	834.0	628.4
2011–20	2,715.5	2,063.4	1,289.2	774.2	652.1

Sources: 1961–70—U.S. Department of Commerce, Bureau of the Census, *Construction Review*, Vol. 10(8), 1964; Vol. 13(9), 1967; Vol. 17(2–3), 1971.

rement by age group changes the overall occupancy rate each year in response to shifts in the number of households by age group. In the longrun, the net effect is to project a moderate increase in the overall occupancy rates for multiunits and a large increase in the overall occupancy rates for mobile units.

The mobile unit occupancy rates used for the projection period increase relative to age, with the occupancy rates highest for the younger age groups. The multiunit occupancy rates increase for the age groups under 35 and over 54. One-unit occupancy rates, however, are lower for all age groups.

PROJECTIONS OF DEMAND FOR HOUSING

The projections presented in this section are based on the model and assumptions discussed in the preceding sections. The three series of projections show how the model may be used and illustrate the effects of alternative population and economic assumptions on housing demand.

These projections can be easily changed to fit alternative assumptions about determinants of housing demand. The revision can be done quickly and economically by simply changing the assumptions for the projection period and rerunning the computer model.

The projections are intended only as a measure of demand under the assumptions made in the study. They may differ from the actual production of housing in the future for many reasons including rates of population and economic growth that are different from those assumed. They also are trend projections which will not show cyclical or random fluctuations which have been associated with housing production in the past.

This study shows that the projected population growth is not enough to cause a major housing boom in the next few decades. Substantial increases in

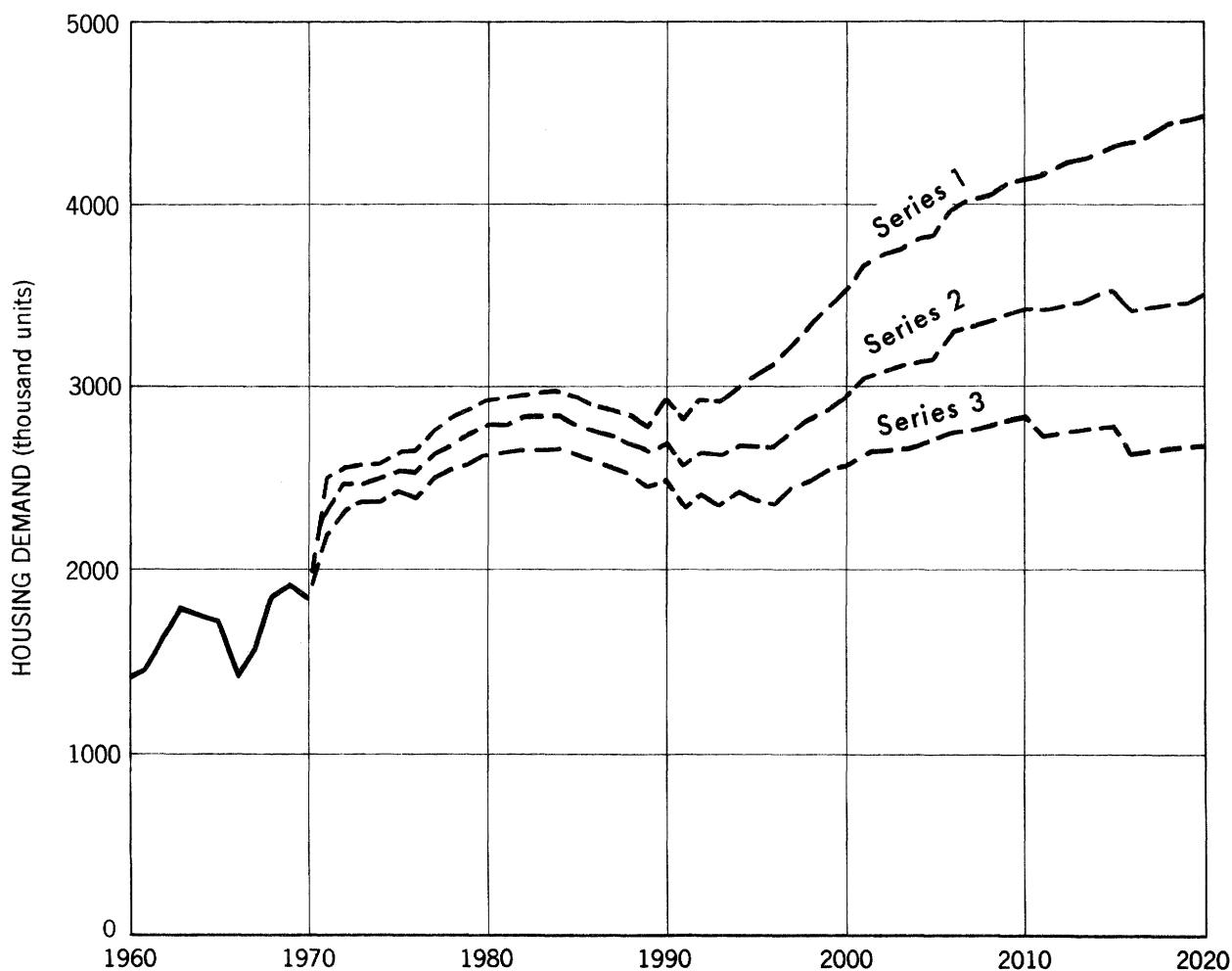


FIGURE 8.—Total demand for housing, 1960–70, with projections to 2020.

headship and in vacancy and replacement rates are also required. These factors are generally related to economic growth and cannot be projected with as much certainty as the population already born. Population growth alone, assuming 1970 headship rates, will require 10.8 million additional households in the 1970's and 1980's, which is only slightly more than were added in the 1950's and 1960's to provide for increased household formations.

Total housing demand

The total national housing demand (10-year averages) for series 1, 2, and 3 is summarized by type of unit in table 8 and figure 8 (Appendix tables 31–33), and by components of housing demand in table 9 (Appendix tables 28–30).

Total housing demand including mobile homes is projected to rise to between 24.3 and 26.8 million housing units in the 1970–80 decade—substantially

above the 17 million units produced in the 1960's and the 16 million units produced in the 1950's.

The medium projection of total housing demand in the 1970's is 25.6 million units. Only about half of the total demand in the 1970's is projected to be occupied by additional households; the remainder will be used for replacements or to increase vacancies (table 9).

Vacancies are projected to rise by 2.8 million for the decade, compared with an increase of 2.1 million vacancies in the 1950's and a net decrease of 91,000 vacancies in the 1960's. Approximately 1 million of the vacant units would be used to alleviate the current housing shortage by increasing the inventory of units available for sale and rent to the level which prevailed in the early 1960's, i.e., about 3.5 percent of the housing stock. The remainder of the vacant units would be used to accommodate the growth of the housing stock and for some increase in the demand for second homes.

TABLE 9.—*Projections of housing demand in the United States by components, 10-year averages, to 2020*

(Thousand units)

Period	Household formation	Replacement		Vacancies, conventional	Other mobile units ¹
		Conventional	Mobile units		
Series 1:					
1971-80	1,333.5	764.6	167.3	306.0	107.2
1981-90	1,315.4	966.7	268.9	248.0	112.9
1991-2000	1,237.3	1,121.1	324.5	328.3	122.8
2001-10	1,615.6	1,298.0	416.7	409.0	177.1
2011-20	1,715.8	1,502.6	512.5	404.1	196.4
Series 2:					
1971-80	1,276.4	735.4	164.0	280.3	103.3
1981-90	1,264.6	908.9	260.5	214.9	108.1
1991-2000	1,026.2	1,043.2	302.9	250.7	104.7
2001-10	1,255.3	1,179.4	366.9	288.4	148.1
2011-20	1,266.6	1,334.5	440.6	268.7	162.2
Series 3:					
1971-80	1,203.5	716.7	160.4	253.1	98.9
1981-90	1,197.4	851.9	251.4	180.8	103.0
1991-2000	910.2	967.7	285.6	178.4	93.5
2001-10	1,004.9	1,072.5	332.1	195.5	125.7
2011-20	868.2	1,175.5	381.2	160.1	130.4

¹ Includes mobile units used as second homes, vacant units not counted in the housing inventory by the Bureau of the Census or for nonresidential purposes such as offices.

Replacement demand is projected to increase substantially for 1971-80. The medium projection indicates an increase of 9 million units. This includes 1.6 million mobile home replacements. Net replacement was about 3.6 million units in the 1950's and approximately 6 million in the 1960's, including 0.6 million mobile homes. The increase in replacements reflects both a larger housing stock and a higher rate of replacement. The rate of replacement is projected to average 1.15 percent of the housing stock a year for the decade.

In addition to the demand for households, vacancies, and replacements the demand for mobile units not used as primary residences or counted in the housing stock (as defined by the Bureau of Census) is projected at 1 million in the 1970's. These mobile units may be used as second homes, vacant housing units not counted in the housing inventory, or for other nonresidential purposes, such as offices or school rooms. Twenty percent of total mobile home shipments are assumed to be in this category.

In the 1980's total housing demand is projected to increase to 25.8 million units for series 3 and 29.1 million units for series 1. On an annual basis total housing demand is projected to reach a peak of 2.83 million units in 1984 and then fall to 2.63 million

units in 1989 as population pressure declines because of the decline in births in the 1960's.

The medium projection for net household additions for the decade is 12.6 million with household formation reaching a peak of 1.4 million in 1982. Vacant units are projected to increase by 2.1 million units for the middle series (series 2). The increase in vacancies reflects the growing housing stock and growing demand for additional second homes. The series 2 projection for replacement is 11.7 million units including 2.6 million mobile units.

For 1991-2000 total housing demand is projected to vary from 24.4 million units for the low series to 31.4 million units for the high series. Alternative population growth rate assumptions become important for the first time in this decade and the range of the series broadens considerably.

Total housing unit demand (series 2) is projected to increase from 2.57 million units in 1991 to 2.94 million units by 2000. Population pressure will reach a low in the first half of the 1990's, and, as a result, net household formation (series 2) is only 10.3 million additional households for the decade. Vacancies are projected to increase by 2.5 million units. Replacement is projected to become the most important component of housing demand in the 1990's with total replacement amounting to 13.5

TABLE 10.—Annual housing production in the United States by type of unit and region, 1959–70, with projections of demand (series 2) to 2020

(Thousand units)

Year	Total	New construction			Mobile units	Region			
		All starts	One- unit	Multi- units		North- east	North Central	South	West
1959	1,674	1,554	1,251	303	120	296	406	567	405
1960	1,400	1,296	1,009	287	104	252	334	472	342
1961	1,455	1,365	989	376	90	277	315	516	347
1962	1,610	1,492	996	496	118	290	325	586	409
1963	1,793	1,642	1,022	620	151	291	372	659	471
1964	1,753	1,562	973	589	191	284	396	673	400
1965	1,726	1,510	965	545	216	307	427	681	311
1966	1,413	1,196	780	416	217	244	358	572	239
1967	1,562	1,322	845	477	240	254	407	640	261
1968	1,864	1,546	901	645	317	274	457	780	352
1969	1,913	1,500	811	688	413	258	462	806	387
1970	1,866	1,465	814	651	401	269	401	819	377
Projections									
1971	2,325	1,906	1,008	898	419	397	569	844	515
1972	2,463	1,996	1,082	914	469	428	620	876	541
1973	2,474	1,997	1,104	893	477	442	618	874	541
1974	2,499	1,995	1,082	913	504	432	622	892	552
1975	2,523	1,996	1,072	924	527	433	627	898	564
1976	2,504	1,962	1,059	903	542	439	636	896	533
1977	2,615	2,086	1,221	865	529	464	666	930	555
1978	2,679	2,137	1,260	877	542	477	684	950	569
1979	2,731	2,162	1,255	907	569	486	698	967	581
1980	2,781	2,195	1,271	924	586	495	711	983	592
1981	2,792	2,191	1,269	922	601	484	711	1,004	594
1982	2,824	2,266	1,425	841	558	490	718	1,015	601
1983	2,827	2,260	1,420	840	567	488	719	1,018	602
1984	2,834	2,266	1,436	830	568	486	720	1,023	605
1985	2,796	2,240	1,446	794	556	475	709	1,013	599
1986	2,758	2,219	1,473	746	539	454	690	1,010	603
1987	2,718	2,197	1,488	709	521	443	679	1,000	597
1988	2,684	2,181	1,504	676	503	432	668	992	592
1989	2,633	2,145	1,499	646	488	418	654	978	583
1990	2,697	2,196	1,526	670	501	430	670	1,001	597
1991	2,573	2,114	1,515	599	459	393	630	967	583
1992	2,647	2,173	1,528	645	474	407	648	992	599
1993	2,623	2,148	1,501	647	475	400	641	987	596
1994	2,674	2,184	1,512	672	490	408	653	1,006	607
1995	2,678	2,176	1,478	698	502	406	653	1,009	610
1996	2,670	2,161	1,454	707	509	394	643	1,015	618
1997	2,763	2,219	1,449	770	543	411	666	1,047	638
1998	2,824	2,249	1,426	823	575	422	681	1,069	652
1999	2,886	2,297	1,449	848	589	433	696	1,091	666
2000	2,940	2,319	1,418	902	621	442	709	1,112	678
2001	3,051	2,368	1,377	991	683	476	753	1,136	686
2002	3,079	2,386	1,385	1,001	693	479	760	1,147	693
2003	3,108	2,405	1,394	1,011	703	483	767	1,159	700
2004	3,136	2,423	1,402	1,021	713	486	774	1,170	706
2005	3,165	2,441	1,410	1,031	724	490	780	1,181	713
2006	3,304	2,547	1,477	1,070	757	535	810	1,235	724
2007	3,336	2,568	1,487	1,081	768	539	818	1,248	731
2008	3,368	2,590	1,498	1,092	778	544	825	1,261	739
2009	3,400	2,611	1,509	1,103	789	548	833	1,273	746
2010	3,433	2,633	1,519	1,114	799	553	840	1,286	753
2011	3,424	2,632	1,581	1,051	792	543	860	1,263	758
2012	3,451	2,650	1,591	1,060	801	547	867	1,274	764

TABLE 10.—Annual housing production in the United States by type of unit and region, 1959–70, with projections of demand (series 2) to 2020 (Continued)

(Thousand units)

Year	Total	New construction			Mobile units	Region			
		All starts	One-unit	Multi-units		North-east	North Central	South	West
2013	3,479	2,668	1,600	1,068	811	550	873	1,285	771
2014	3,506	2,686	1,609	1,077	820	553	880	1,295	777
2015	3,533	2,704	1,619	1,085	829	557	886	1,306	784
2016	3,419	2,623	1,610	1,013	797	554	855	1,274	736
2017	3,443	2,639	1,619	1,020	804	557	861	1,284	741
2018	3,466	2,655	1,628	1,027	811	560	866	1,293	746
2019	3,489	2,671	1,637	1,034	818	563	872	1,302	752
2020	3,512	2,687	1,646	1,042	825	566	877	1,312	757

Sources: Housing starts: 1959–70—U.S. Department of Commerce, Bureau of Domestic Commerce, *Construction Review*, Vol. 10(8), 1964; Vol. 13(9), 1967; and Vol. 17(2–3), 1971.

Mobile Home Shipments: 1959–70—Data from Mobile Home Manufacturers Association.

million units (series 2). This total includes 3 million mobile unit replacements. The demand for mobile units for second homes or nonresidential purposes is projected at 1 million units.

In the decade after 2000 the projection series diverge more rapidly because of the cumulative effect of the alternative assumptions about population growth. Series 1 shows total housing demand reaching 39.2 million units for 2001–10 versus 27.3 million units for series 3. The series 2 projection is for 32.5 million units. The series 2 projection for net household formation is 12.6 million or about 40 percent of the total demand.

Vacant units are projected to increase by 2.9 million units (series 2). Replacements are projected to become the dominant factor in housing demand for the decade, reaching a total of 15.5 million units for series 2. Some 3.7 million of this total are mobile home replacements. Mobile units not used as primary residences are projected at 1.5 million.

For 2011–20 total housing demand is projected to range from 27.2 million units for series 3 to 43.3 million units for series 1. The series 2 projection is for 34.7 million units.

Total households are projected to increase by 12.7 million (series 2), and the demand for vacancies to 2.7 million units. Replacement continues to increase in importance, reflecting in part the growing mobile unit stock which has a higher replacement rate. The medium projection shows total replacements rising to 17.8 million units during the decade.

The housing type-mix

While total housing stock in the decade 1960–70 increased about 17 percent, the number of units in

structures with two or more units increased by over 27 percent, bringing the total for such units to about 19 million. Mobile homes occupied as primary households more than doubled, increasing from 767,000 to about 1,847,000 which raised mobile homes share of the housing stock from 1.3 to 2.7 percent. Total one-unit structures increased by only about 7 percent for the decade, bringing the total of such units to about 47 million.

This is just reverse of the situation which prevailed in the 1950's when the stock of one-unit detached structures increased by 39 percent while the inventory as a whole increased by about 26 percent. The share of detached one-unit structures in the housing stock increased to 70 percent in 1960 from 63.9 percent in 1950 and 64.0 percent in 1940. The 1950's were an unusual decade when almost 90 percent of new housing units were single-unit structures. Historically, this was an abnormally high percentage. Many factors contributed to this boom in single-family housing, particularly the availability of funds for government-insured mortgages. By 1960, there was a large stock of recently built one-unit houses, while the stock of multiunit structures was mostly either built before 1930 or converted from existing structures in the 1930's and 1940's. With a rise in the number of young households increased apartment construction was a natural occurrence in the 1960's.

The results of this study indicate that in the first half of the 1970's, the rising trend in the construction of multifamily units will continue (table 10, fig. 9, Appendix tables 7–9 and 31–33). New construction is projected to be divided between about 54 percent one-unit structures and 46 percent multiunit structures (series 2).

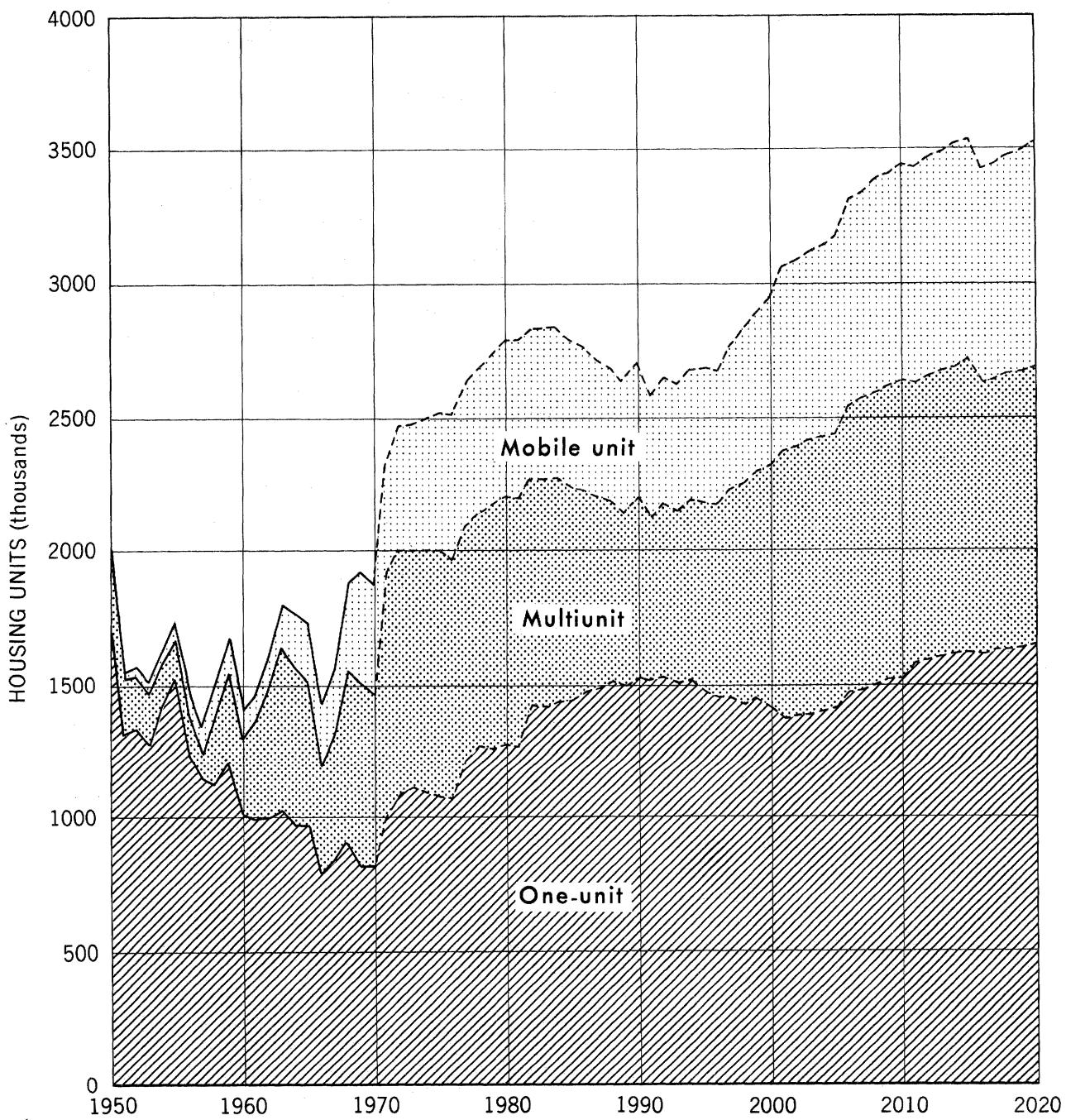


FIGURE 9.—Estimated housing production by type of unit, 1950–70, with projected demand (series 2) to 2020.

A long run swing toward one-unit structures is projected to begin in the last half of the 1970's as the large increase in population born in 1940–60 begins to enter its middle ages. The proportion of new construction which is in one-unit structures is projected to increase to 58 percent, while that in multiunit structures decreases to 42 percent (series 2). Mobile units are projected to be about 20 percent of total housing demand for the decade. A large market for

some type of moderately priced one-unit structure is expected in the 1970's as the number of households in the 25–34 year old age group increases by an expected 6 million. This is the age group in which the majority of households typically purchase their first single-family home.

The demand for one-unit structures is expected to continue to rise in the 1980's because most of the growth in households for the decade will be con-

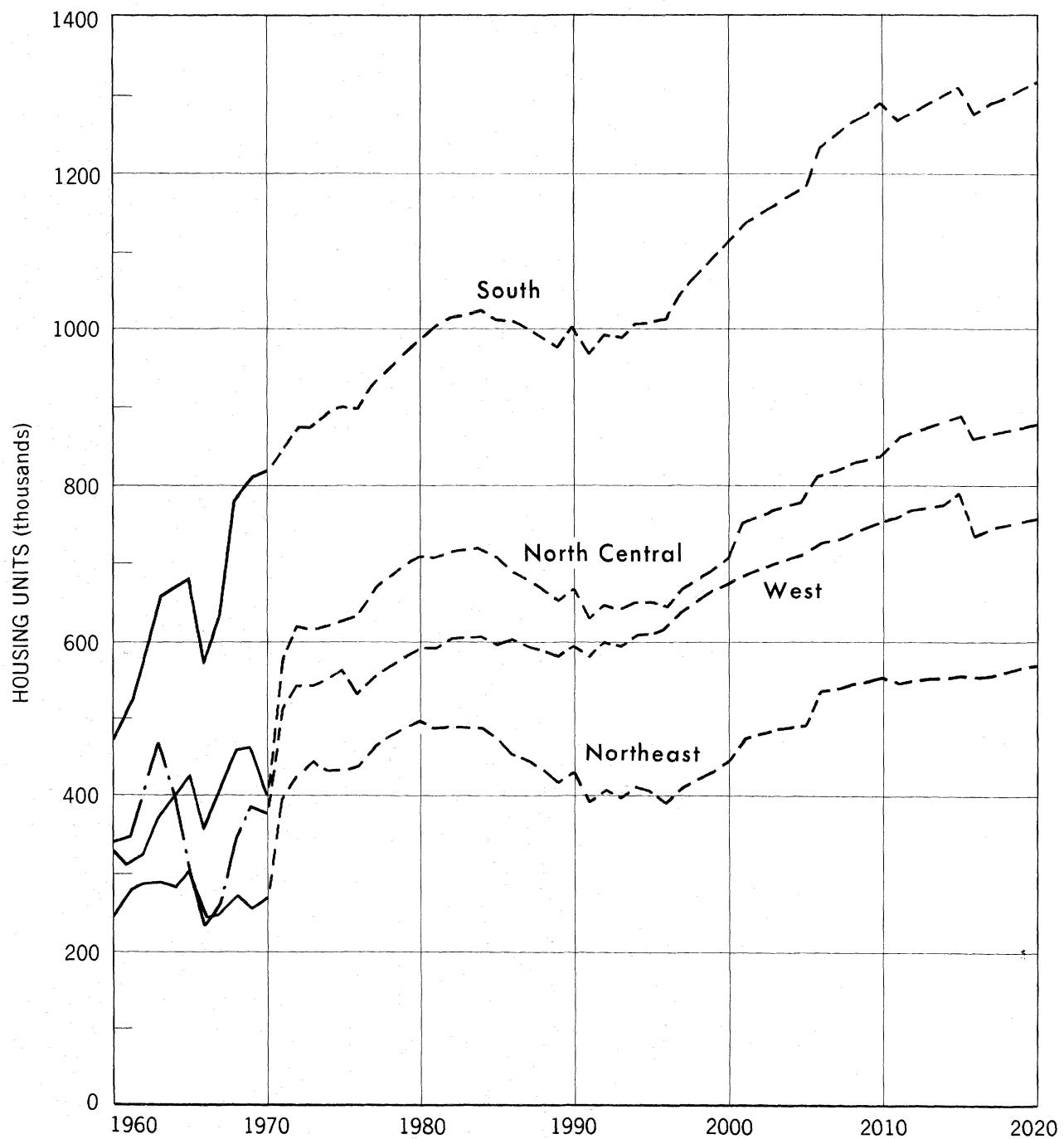


FIGURE 10.—Total production of housing by region, 1960–70, with projected demand (series 2) to 2020.

centrated in the middle-aged groups. Multifamily structures are projected to decline in importance in the decade as the number of households under 25 years of age actually decrease because of the sharp drop in births in the 1960's. One-unit structures are expected to increase to about 70 percent of new housing construction by 1990 while multiunit structures decrease to about 30 percent.

For the whole decade 1981–90, new construction is projected to be divided between about 65 percent one-unit structures and 35 percent multiunit structures. Mobile units are projected to constitute 19.5 percent of total housing demand for the decade.

In the early 1990's one-unit housing demand is projected to reach a peak as the number of households aged 35–54 increase by about 1 million a year.

Households in this age group typically occupy a single-family housing unit and are more likely to upgrade their housing units to more expansive, individually styled or custom-built units than are the less affluent younger age groups.

In the 1990's the population growth rate assumption will become an important factor in determining the number of young households and the mix of housing types. A swing back toward multiunit structures is projected in the late 1990's because of the increase in births projected to take place in the 1970's. However, the medium projection for the whole decade 1991-2000 is for new construction to be divided between 67 percent one-unit structures and 33 percent multiunit structures.

Mobile units are projected to constitute 19 percent of total housing demand in the 1990's; most of this demand will be for mobile units replacement. A large increase in second home demand is also projected to occur in the decade because of the huge increase in households in the 40-60 year old age group who are the major owners of second homes.

After the year 2000 the mix of housing types will be increasingly influenced by the population growth rate assumption used to determine the number of younger households. The household increase from the older age groups will be concentrated in the 55-64 year old age group for 2001-10 and in the 65 year old and over age group for 2011-20 with a total increase of about 6 million for each group. A net decrease in households of over 2 million can also be projected for the 35-44 year old age group from 2001-10 and for

the 45-54 year old age group from 2011-20. By the year 2020 the demand for housing for the elderly will increase tremendously. The decade of the 2010's may well be designated as the decade of the retiree.

After the year 2000 the mix of new construction is projected to average near 60 percent one-unit structures and 40 percent multiunit structures. Mobile units are projected on the average to be about 23 percent of housing demand. Much of the mobile unit demand is for the replacement of the growing stock of older mobile units.

Regional housing projections

Regional projections of housing demand are summarized in table 11 and shown by year and type of unit in Appendix tables 34-35.

The regional projections of total housing demand follow the same general trends as the national housing projections (table 11, fig. 10). The regional projections increase in the 1970's and early 1980's, then decline slightly until the 1990's. In the late 1990's an upswing in housing demand is projected for all regions. The magnitude of the upswing will depend on the rate of population growth assumed after 1970.

The regional distribution of housing demand is projected to be approximately the same as it has averaged over the past 20 years because of the continuation of historical trends in regional population growth, replacement rates, and vacancy rates.

TABLE 11.—*Projections of housing demand in the United States by region, 10-year averages, to 2020*

(Thousand units)

Period	Northeast	North Central	South	West
Series 1:				
1971-80	471.4	682.3	945.4	579.6
1981-90	484.7	740.3	1,054.0	632.0
1991-2000	485.4	773.8	1,162.9	713.1
2001-10	636.2	976.5	1,436.8	866.9
2011-20	706.6	1,095.9	1,580.8	947.6
Series 2:				
1971-80	449.3	645.1	911.0	554.3
1981-90	460.0	693.8	1,005.4	597.3
1991-2000	411.6	662.0	1,029.5	624.7
2001-10	513.3	796.0	1,209.6	719.1
2011-20	555.0	869.7	1,288.8	758.6
Series 3:				
1971-80	421.0	608.2	872.3	531.6
1981-90	422.1	642.2	957.5	562.4
1991-2000	350.7	580.1	941.5	562.8
2001-10	411.4	659.5	1,048.7	610.2
2011-20	406.8	669.5	1,042.5	596.4

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TABLE 1.—*Series 1 projections of United States population over 14 years of age, by age class, 1971–2020*
(Thousands)

Year	Age class							
	15–19	20–24	25–29	30–34	35–44	45–54	55–64	65+
1971	19,545	18,025	14,229	11,790	22,809	23,575	18,819	20,137
1972	20,010	17,972	15,329	12,251	22,612	23,701	19,086	20,456
1973	20,351	18,287	15,898	12,972	22,534	23,777	19,356	20,790
1974	20,629	18,682	16,634	13,487	22,536	23,769	19,631	21,139
1975	20,806	19,205	17,337	13,983	22,607	23,670	19,912	21,503
1976	21,093	19,654	18,157	14,339	22,833	23,500	20,195	21,885
1977	21,179	20,116	18,115	15,443	23,303	23,256	20,477	22,282
1978	21,173	20,456	18,428	16,008	24,147	22,946	20,743	22,688
1979	21,089	20,734	18,822	16,740	24,863	22,605	20,981	23,093
1980	20,825	20,911	19,342	17,437	25,523	22,352	21,180	23,492
1981	20,209	21,197	19,788	18,252	26,160	22,127	21,345	23,883
1982	19,579	21,283	20,249	18,211	27,718	21,956	21,473	24,266
1983	18,910	21,278	20,587	18,524	28,987	21,891	21,546	24,652
1984	18,374	21,195	20,864	18,915	30,216	21,902	21,542	25,054
1985	18,131	20,933	21,041	19,432	31,394	21,980	21,450	25,474
1986	18,231	20,322	21,318	19,875	32,559	22,193	21,311	25,910
1987	18,557	19,696	21,400	20,331	33,610	22,648	21,099	26,356
1988	19,119	19,031	21,393	20,668	34,479	23,467	20,833	26,793
1989	19,738	18,498	21,230	20,945	35,579	24,165	20,523	27,200
1990	20,369	18,258	21,067	21,124	36,763	24,817	20,318	27,567
1991	21,013	18,353	20,462	21,349	38,005	25,424	20,129	27,892
1992	21,667	18,675	19,842	21,481	38,428	26,926	19,990	28,176
1993	22,328	19,233	19,182	21,475	39,072	28,153	19,949	28,415
1994	22,984	19,851	18,653	21,411	39,729	29,343	19,976	28,604
1995	23,623	20,488	18,412	21,154	40,410	30,478	20,064	28,740
1996	24,238	21,124	18,509	20,533	41,119	31,596	20,276	28,834
1997	24,811	21,774	18,831	19,937	41,651	32,608	20,710	28,884
1998	25,329	22,430	19,387	19,281	41,978	33,450	21,476	28,883
1999	25,778	23,088	20,002	18,756	42,190	34,510	22,123	28,839
2000	26,152	23,731	20,634	18,520	42,113	35,647	22,726	28,837
2001	26,318	24,235	21,279	18,962	41,599	36,351	23,764	28,880
2002	26,484	24,739	21,924	19,404	41,085	37,055	24,801	28,923
2003	26,650	25,242	22,570	19,846	40,570	37,760	25,839	28,965
2004	26,816	25,746	23,215	20,288	40,056	38,464	26,876	29,008
2005	26,982	26,250	23,860	20,730	39,542	39,168	27,914	29,051
2006	27,064	26,415	24,361	21,371	39,465	39,492	28,849	29,433
2007	27,146	26,580	24,862	22,013	39,389	39,817	29,784	29,815
2008	27,227	26,746	25,364	22,654	39,312	40,141	30,718	30,198
2009	27,309	26,911	25,865	23,296	39,236	40,466	31,653	30,580
2010	27,391	27,076	26,366	23,937	39,159	40,790	32,588	30,962
2011	27,664	27,157	26,530	24,435	40,228	40,291	33,224	31,805
2012	27,937	27,239	26,694	24,933	41,298	39,792	33,860	32,648
2013	28,209	27,320	26,859	25,430	42,367	39,292	34,495	33,492
2014	28,482	27,402	27,023	25,928	43,437	38,793	35,131	34,335
2015	28,755	27,483	27,187	26,426	44,506	38,294	35,767	35,178
2016	29,221	27,755	27,268	26,589	45,628	38,231	36,052	36,183
2017	29,687	28,026	27,349	26,753	46,750	38,168	36,337	37,188
2018	30,152	28,298	27,429	26,916	47,872	38,104	36,623	38,193
2019	30,618	28,569	27,510	27,080	48,994	38,041	36,908	39,198
2020	31,084	28,841	27,591	27,243	50,116	37,978	37,193	40,203

TABLE 2.—Series 2 projections of United States population over 14 years of age, by age class, 1971–2020
(Thousands)

Year	Age class							
	15–19	20–24	25–29	30–34	35–44	45–54	55–64	65+
1971	19,545	18,025	14,229	11,790	22,809	23,575	18,819	20,137
1972	20,010	17,972	15,329	12,251	22,612	23,701	19,086	20,456
1973	20,351	18,287	15,898	12,972	22,534	23,777	19,356	20,790
1974	20,629	18,682	16,634	13,487	22,536	23,769	19,631	21,139
1975	20,806	19,205	17,337	13,983	22,607	23,670	19,912	21,503
1976	21,093	19,654	18,157	14,339	22,833	23,500	20,195	21,885
1977	21,179	20,116	18,115	15,443	23,303	23,256	20,477	22,282
1978	21,173	20,456	18,428	16,008	24,147	22,946	20,743	22,688
1979	21,089	20,734	18,822	16,740	24,863	22,605	20,981	23,093
1980	20,825	20,911	19,342	17,437	25,523	22,352	21,180	23,492
1981	20,209	21,197	19,788	18,252	26,160	22,127	21,345	23,883
1982	19,579	21,283	20,249	18,211	27,718	21,956	21,473	24,266
1983	18,910	21,278	20,587	18,524	28,987	21,891	21,546	24,652
1984	18,374	21,195	20,864	18,915	30,216	21,902	21,542	25,054
1985	17,943	20,933	21,041	19,432	31,394	21,980	21,450	25,474
1986	17,777	20,322	21,318	19,875	32,559	22,193	21,311	25,910
1987	17,797	19,696	21,400	20,331	33,610	22,648	21,099	26,356
1988	18,009	19,031	21,393	20,668	34,479	23,467	20,833	26,793
1989	18,231	18,498	21,230	20,945	35,579	24,165	20,523	27,200
1990	18,603	18,071	21,067	21,124	36,763	24,817	20,318	27,567
1991	19,017	17,902	20,462	21,349	38,005	25,424	20,129	27,892
1992	19,433	17,918	19,842	21,481	38,428	26,926	19,990	28,176
1993	19,952	18,129	19,182	21,475	39,072	28,153	19,949	28,415
1994	20,177	18,353	18,653	21,411	39,729	29,343	19,976	28,604
1995	20,707	18,731	18,226	21,154	40,410	30,478	20,064	28,740
1996	21,146	19,138	18,061	20,533	41,119	31,596	20,276	28,834
1997	21,581	19,549	18,080	19,937	41,651	32,608	20,710	28,884
1998	22,002	19,967	18,289	19,281	41,978	33,450	21,476	28,883
1999	22,394	20,394	18,511	18,756	42,190	34,510	22,123	28,839
2000	22,745	20,829	18,886	18,335	42,113	35,647	22,726	28,837
2001	22,938	21,235	19,304	18,467	41,562	36,351	23,764	28,880
2002	23,131	21,641	19,721	18,598	41,011	37,055	24,801	28,923
2003	23,323	22,047	20,139	18,730	40,460	37,760	25,839	28,965
2004	23,516	22,453	20,556	18,861	39,909	38,464	26,876	29,008
2005	23,709	22,859	20,974	18,993	39,358	39,168	27,914	29,051
2006	23,718	23,051	21,378	19,408	38,937	39,492	28,849	29,433
2007	23,727	23,243	21,782	19,823	38,517	39,817	29,784	29,815
2008	23,737	23,435	22,185	20,238	38,096	40,141	30,718	30,198
2009	23,746	23,627	22,589	20,653	37,676	40,466	31,653	30,580
2010	23,755	23,819	22,993	21,068	37,255	40,790	32,588	30,962
2011	23,788	23,828	23,184	21,469	37,796	40,255	33,224	31,805
2012	23,821	23,837	23,375	21,871	38,337	39,720	33,860	32,648
2013	23,854	23,846	23,566	22,272	38,878	39,186	34,495	33,492
2014	23,887	23,855	23,757	22,674	39,419	38,651	35,131	34,335
2015	23,920	23,864	23,948	23,075	39,960	38,116	35,767	35,178
2016	24,096	23,897	23,957	23,265	40,764	37,720	36,052	36,183
2017	24,273	23,930	23,966	23,454	41,569	37,323	36,337	37,188
2018	24,449	23,963	23,974	23,644	42,373	36,927	36,623	38,193
2019	24,626	23,996	23,983	23,833	43,178	36,530	36,908	39,198
2020	24,802	24,029	23,992	24,023	43,982	36,134	37,193	40,203

TABLE 3.—*Series 3 projections of United States population over 14 years of age, by age class, 1971–2020*

(Thousands)

Year	Age class							
	15–19	20–24	25–29	30–34	35–44	45–54	55–64	65+
1971	19,545	18,025	14,229	11,790	22,809	23,575	18,819	20,137
1972	20,010	17,972	15,329	12,251	22,612	23,701	19,086	20,456
1973	20,351	18,287	15,898	12,972	22,534	23,777	19,356	20,790
1974	20,629	18,682	16,634	13,487	22,536	23,769	19,631	21,139
1975	20,806	19,205	17,337	13,983	22,607	23,670	19,912	21,503
1976	21,093	19,654	18,157	14,339	22,833	23,500	20,195	21,885
1977	21,179	20,116	18,115	15,443	23,303	23,256	20,477	22,282
1978	21,173	20,456	18,428	16,008	24,147	22,946	20,743	22,688
1979	21,089	20,734	18,822	16,740	24,863	22,605	20,981	23,093
1980	20,825	20,911	19,342	17,437	25,523	22,352	21,180	23,492
1981	20,209	21,197	19,788	18,252	26,160	22,127	21,345	23,883
1982	19,579	21,283	20,249	18,211	27,718	21,956	21,473	24,266
1983	18,910	21,278	20,587	18,524	28,987	21,891	21,546	24,652
1984	18,374	21,195	20,864	18,915	30,216	21,902	21,542	25,054
1985	17,847	20,933	21,041	19,432	31,394	21,980	21,450	25,474
1986	17,552	20,322	21,318	19,875	32,559	22,193	21,311	25,910
1987	17,433	19,696	21,400	20,331	33,610	22,648	21,099	26,356
1988	17,496	19,031	21,393	20,668	34,479	23,467	20,833	26,793
1989	17,557	18,498	21,230	20,945	35,579	24,165	20,523	27,200
1990	17,853	17,975	21,067	21,124	36,763	24,817	20,318	27,567
1991	18,210	17,677	20,462	21,349	38,005	25,424	20,129	27,892
1992	18,561	17,557	19,842	21,481	38,428	26,926	19,990	28,176
1993	18,907	17,619	19,182	21,475	39,072	28,153	19,949	28,415
1994	19,244	17,683	18,653	21,411	39,729	29,343	19,976	28,604
1995	19,567	17,985	18,130	21,154	40,410	30,478	20,064	28,740
1996	19,875	18,335	17,838	20,533	41,119	31,596	20,276	28,834
1997	20,156	18,683	17,720	19,937	41,651	32,608	20,710	28,884
1998	20,400	19,027	17,782	19,281	41,978	33,450	21,476	28,883
1999	20,600	19,366	17,845	18,756	42,190	34,510	22,123	28,839
2000	20,748	19,694	18,145	18,240	42,113	35,647	22,726	28,837
2001	20,745	19,930	18,485	18,243	41,543	36,351	23,764	28,880
2002	20,742	20,165	18,825	18,246	40,973	37,055	24,801	28,923
2003	20,740	20,401	19,166	18,250	40,404	37,760	25,839	28,965
2004	20,737	20,636	19,506	18,253	39,834	38,464	26,876	29,008
2005	20,734	20,872	19,846	18,256	39,264	39,168	27,914	29,051
2006	20,617	20,869	20,080	18,594	38,697	39,492	28,849	29,433
2007	20,500	20,866	20,314	18,932	38,130	39,817	29,784	29,815
2008	20,383	20,864	20,549	19,271	37,564	40,141	30,718	30,198
2009	20,266	20,861	20,783	19,609	36,997	40,466	31,653	30,580
2010	20,149	20,858	21,017	19,947	36,430	40,790	32,588	30,962
2011	20,132	20,741	21,014	20,180	36,769	40,237	33,224	31,805
2012	20,115	20,625	21,011	20,412	37,108	39,684	33,860	32,648
2013	20,098	20,508	21,009	20,645	37,447	39,130	34,495	33,492
2014	20,081	20,392	21,006	20,877	37,786	38,577	35,131	34,335
2015	20,064	20,275	21,003	21,110	38,125	38,024	35,767	35,178
2016	20,164	20,258	20,887	21,107	38,687	37,486	36,052	36,183
2017	20,263	20,241	20,771	21,105	39,249	36,949	36,337	37,188
2018	20,363	20,225	20,656	21,102	39,810	36,411	36,623	38,193
2019	20,462	20,208	20,540	21,100	40,372	35,874	36,908	39,198
2020	20,562	20,191	20,424	21,097	40,934	35,336	37,193	40,203

TABLE 4.—Series 1 projections of headship rates for United States population over 14 years of age, by age class,
1971–2020
(Percent)

Year	Age class							
	15–19	20–24	25–29	30–34	35–44	45–54	55–64	65+
1971-----	1.8	23.4	44.9	48.6	50.5	52.9	58.4	63.1
1972-----	1.9	23.7	45.1	48.8	50.7	52.9	58.5	63.3
1973-----	1.9	24.0	45.4	48.9	50.8	53.0	58.6	63.6
1974-----	1.9	24.3	45.6	49.1	51.0	53.0	58.7	63.8
1975-----	2.0	24.6	45.9	49.3	51.1	53.1	58.8	64.0
1976-----	2.0	24.9	46.1	49.5	51.2	53.1	58.9	64.2
1977-----	2.0	25.1	46.4	49.6	51.3	53.2	59.0	64.4
1978-----	2.0	25.4	46.6	49.8	51.5	53.2	59.0	64.5
1979-----	2.1	25.6	46.9	49.9	51.6	53.3	59.1	64.7
1980-----	2.1	25.9	47.1	50.1	51.7	53.3	59.2	64.9
1981-----	2.1	26.1	47.3	50.2	51.8	53.3	59.3	65.1
1982-----	2.2	26.3	47.5	50.3	51.9	53.4	59.3	65.2
1983-----	2.2	26.6	47.7	50.5	52.0	53.4	59.4	65.4
1984-----	2.2	26.8	47.9	50.6	52.1	53.5	59.4	65.5
1985-----	2.3	27.0	48.1	50.7	52.2	53.5	59.5	65.7
1986-----	2.3	27.2	48.3	50.8	52.3	53.5	59.5	65.8
1987-----	2.3	27.4	48.5	50.9	52.4	53.5	59.5	65.9
1988-----	2.3	27.5	48.6	51.0	52.4	53.6	59.6	66.1
1989-----	2.4	27.7	48.8	51.1	52.5	53.6	59.6	66.2
1990-----	2.4	27.9	49.0	51.2	52.6	53.6	59.6	66.3
1991-----	2.4	28.0	49.1	51.3	52.7	53.6	59.6	66.4
1992-----	2.5	28.2	49.3	51.4	52.7	53.6	59.6	66.5
1993-----	2.5	28.3	49.4	51.4	52.8	53.7	59.7	66.7
1994-----	2.5	28.5	49.6	51.5	52.8	53.7	59.7	66.8
1995-----	2.5	28.6	49.7	51.6	52.9	53.7	59.7	66.9
1996-----	2.6	28.7	49.8	51.7	52.9	53.7	59.7	67.0
1997-----	2.6	28.8	49.9	51.7	53.0	53.7	59.7	67.1
1998-----	2.6	28.9	50.0	51.8	53.0	53.8	59.8	67.1
1999-----	2.7	29.0	50.1	51.8	53.1	53.8	59.8	67.2
2000-----	2.7	29.1	50.2	51.9	53.1	53.8	59.8	67.3
2001-----	2.7	29.2	50.3	51.9	53.1	53.8	59.8	67.4
2002-----	2.8	29.3	50.4	52.0	53.1	53.8	59.8	67.4
2003-----	2.8	29.3	50.4	52.0	53.2	53.9	59.9	67.5
2004-----	2.8	29.4	50.5	52.1	53.2	53.9	59.9	67.5
2005-----	2.8	29.5	50.6	52.1	53.2	53.9	59.9	67.6
2006-----	2.9	29.6	50.7	52.1	53.2	53.9	59.9	67.6
2007-----	2.9	29.7	50.7	52.1	53.2	53.9	59.9	67.7
2008-----	2.9	29.7	50.8	52.2	53.3	54.0	60.0	67.7
2009-----	3.0	29.8	50.8	52.2	53.3	54.0	60.0	67.8
2010-----	3.0	29.9	50.9	52.2	53.3	54.0	60.0	67.8
2011-----	3.0	30.0	50.9	52.2	53.3	54.0	60.0	67.8
2012-----	3.1	30.1	51.0	52.2	53.3	54.0	60.0	67.8
2013-----	3.1	30.1	51.0	52.3	53.4	54.1	60.1	67.8
2014-----	3.1	30.2	51.1	52.3	53.4	54.1	60.1	67.8
2015-----	3.2	30.3	51.1	52.3	53.4	54.1	60.1	67.8
2016-----	3.2	30.4	51.1	52.3	53.4	54.1	60.1	67.8
2017-----	3.2	30.5	51.2	52.3	53.4	54.1	60.1	67.9
2018-----	3.2	30.5	51.2	52.4	53.5	54.2	60.2	67.9
2019-----	3.3	30.6	51.3	52.4	53.5	54.2	60.2	68.0
2020-----	3.3	30.7	51.3	52.4	53.5	54.2	60.2	68.0

TABLE 5.—Series 2 projections of headship rates for United States population over 14 years of age, by age class,
1971–2020

(Percent)

Year	Age class							
	15–19	20–24	25–29	30–34	35–44	45–54	55–64	65+
1971-----	1.8	23.3	44.8	48.5	50.5	52.8	58.4	63.1
1972-----	1.8	23.5	45.0	48.7	50.6	52.9	58.5	63.3
1973-----	1.9	23.7	45.3	48.8	50.8	52.9	58.5	63.4
1974-----	1.9	23.9	45.5	49.0	50.9	53.0	58.6	63.6
1975-----	1.9	24.1	45.7	49.1	51.0	53.0	58.7	63.8
1976-----	1.9	24.3	45.9	49.2	51.1	53.0	58.8	63.9
1977-----	1.9	24.5	46.1	49.4	51.2	53.0	58.8	64.1
1978-----	2.0	24.6	46.3	49.5	51.3	53.1	58.9	64.2
1979-----	2.0	24.8	46.5	49.7	51.4	53.1	58.9	64.4
1980-----	2.0	25.0	46.7	49.8	51.5	53.1	59.0	64.5
1981-----	2.0	25.2	46.9	49.9	51.6	53.1	59.0	64.6
1982-----	2.0	25.3	47.0	50.0	51.7	53.1	59.1	64.8
1983-----	2.1	25.5	47.2	50.1	51.7	53.2	59.1	64.9
1984-----	2.1	25.6	47.3	50.2	51.8	53.2	59.2	65.1
1985-----	2.1	25.8	47.5	50.3	51.9	53.2	59.2	65.2
1986-----	2.1	25.9	47.6	50.4	52.0	53.2	59.2	65.3
1987-----	2.1	26.1	47.8	50.5	52.0	53.2	59.2	65.4
1988-----	2.2	26.2	47.9	50.5	52.1	53.3	59.3	65.6
1989-----	2.2	26.4	48.1	50.6	52.1	53.3	59.3	65.7
1990-----	2.2	26.5	48.2	50.7	52.2	53.3	59.3	65.8
1991-----	2.2	26.6	48.3	50.8	52.2	53.3	59.3	65.9
1992-----	2.2	26.7	48.4	50.8	52.3	53.3	59.3	66.0
1993-----	2.3	26.9	48.6	50.9	52.3	53.4	59.4	66.1
1994-----	2.3	27.0	48.7	50.9	52.4	53.4	59.4	66.2
1995-----	2.3	27.1	48.8	51.0	52.4	53.4	59.4	66.3
1996-----	2.3	27.2	48.9	51.0	52.4	53.4	59.4	66.4
1997-----	2.3	27.3	49.0	51.1	52.4	53.4	59.4	66.5
1998-----	2.4	27.4	49.1	51.1	52.5	53.5	59.5	66.5
1999-----	2.4	27.5	49.2	51.2	52.5	53.5	59.5	66.6
2000-----	2.4	27.6	49.3	51.2	52.5	53.5	59.5	66.7
2001-----	2.4	27.7	49.4	51.2	52.5	53.5	59.5	66.8
2002-----	2.4	27.8	49.5	51.2	52.5	53.5	59.5	66.8
2003-----	2.5	27.8	49.5	51.3	52.6	53.6	59.6	66.9
2004-----	2.5	27.9	49.6	51.3	52.6	53.6	59.6	66.9
2005-----	2.5	28.0	49.7	51.3	52.6	53.6	59.6	67.0
2006-----	2.5	28.1	49.8	51.3	52.6	53.6	59.6	67.0
2007-----	2.5	28.1	49.8	51.3	52.6	53.6	59.6	67.1
2008-----	2.6	28.2	49.9	51.4	52.7	53.7	59.7	67.1
2009-----	2.6	28.2	49.9	51.4	52.7	53.7	59.7	67.2
2010-----	2.6	28.3	50.0	51.4	52.7	53.7	59.7	67.2
2011-----	2.6	28.3	50.0	51.4	52.7	53.7	59.7	67.2
2012-----	2.6	28.4	50.1	51.4	52.7	53.7	59.7	67.2
2013-----	2.7	28.4	50.1	51.5	52.8	53.8	59.8	67.3
2014-----	2.7	28.5	50.2	51.5	52.8	53.8	59.8	67.3
2015-----	2.7	28.5	50.2	51.5	52.8	53.8	59.8	67.3
2016-----	2.7	28.5	50.2	51.5	52.8	53.8	59.8	67.3
2017-----	2.7	28.5	50.2	51.5	52.8	53.8	59.8	67.3
2018-----	2.8	28.6	50.3	51.6	52.9	53.9	59.9	67.4
2019-----	2.8	28.6	50.3	51.6	52.9	53.9	59.9	67.4
2020-----	2.8	28.6	50.3	51.6	52.9	53.9	59.9	67.4

TABLE 6.—*Series 3 projections of headship rates for United States population over 14 years of age, by age class, 1971–2020*

(Percent)

Year	Age class							
	15–19	20–24	25–29	30–34	35–44	45–54	55–64	65 +
1971-----	1.8	23.2	44.7	48.5	50.5	52.8	58.3	63.0
1972-----	1.8	23.3	44.9	48.6	50.5	52.8	58.3	63.1
1973-----	1.8	23.5	45.0	48.7	50.6	52.9	58.4	63.3
1974-----	1.8	23.6	45.2	48.8	50.6	52.9	58.4	63.4
1975-----	1.9	23.7	45.3	48.9	50.7	52.9	58.4	63.5
1976-----	1.9	23.8	45.5	49.0	50.7	52.9	58.4	63.6
1977-----	1.9	24.0	45.7	49.1	50.8	52.9	58.4	63.7
1978-----	1.9	24.1	45.8	49.1	50.8	53.0	58.5	63.8
1979-----	1.9	24.3	46.0	49.2	50.9	53.0	58.5	63.9
1980-----	1.9	24.4	46.2	49.3	50.9	53.0	58.5	64.0
1981-----	1.9	24.5	46.3	49.3	50.9	53.0	58.5	64.1
1982-----	1.9	24.7	46.5	49.4	50.9	53.0	58.5	64.2
1983-----	1.9	24.8	46.6	49.4	51.0	53.1	58.6	64.3
1984-----	1.9	25.0	46.8	49.5	51.0	53.1	58.6	64.4
1985-----	2.0	25.1	46.9	49.5	51.0	53.1	58.6	64.5
1986-----	2.0	25.2	47.0	49.5	51.0	53.1	58.6	64.6
1987-----	2.0	25.3	47.1	49.5	51.0	53.1	58.6	64.7
1988-----	2.0	25.5	47.3	49.6	51.1	53.2	58.7	64.7
1989-----	2.0	25.6	47.4	49.6	51.1	53.2	58.7	64.8
1990-----	2.0	25.7	47.5	49.6	51.1	53.2	58.7	64.9
1991-----	2.0	25.8	47.6	49.6	51.1	53.2	58.7	65.0
1992-----	2.0	25.9	47.7	49.6	51.1	53.2	58.7	65.0
1993-----	2.0	25.9	47.8	49.7	51.2	53.3	58.8	65.1
1994-----	2.0	26.0	47.9	49.7	51.2	53.3	58.8	65.1
1995-----	2.0	26.1	48.0	49.7	51.2	53.3	58.8	65.2
1996-----	2.1	26.2	48.0	49.7	51.2	53.3	58.8	65.2
1997-----	2.1	26.3	48.1	49.7	51.2	53.3	58.8	65.3
1998-----	2.1	26.3	48.1	49.8	51.3	53.4	58.9	65.3
1999-----	2.1	26.4	48.2	49.8	51.3	53.4	58.9	65.4
2000-----	2.1	26.5	48.2	49.8	51.3	53.4	58.9	65.4
2001-----	2.1	26.5	48.3	49.6	51.3	53.4	58.9	65.4
2002-----	2.1	26.6	48.4	49.5	51.3	53.4	58.9	65.4
2003-----	2.1	26.6	48.5	49.3	51.4	53.5	59.0	65.5
2004-----	2.1	26.7	48.6	49.2	51.4	53.5	59.0	65.5
2005-----	2.2	26.7	48.7	49.0	51.4	53.5	59.0	65.5
2006-----	2.2	26.7	48.7	49.2	51.4	53.5	59.0	65.5
2007-----	2.2	26.7	48.7	49.4	51.4	53.5	59.0	65.5
2008-----	2.2	26.8	48.8	49.6	51.5	53.5	59.1	65.6
2009-----	2.2	26.8	48.8	49.8	51.5	53.5	59.1	65.6
2010-----	2.2	26.8	48.8	50.0	51.5	53.5	59.1	65.6
2011-----	2.2	26.8	48.8	50.0	51.5	53.5	59.1	65.6
2012-----	2.2	26.8	48.8	50.0	51.5	53.5	59.1	65.6
2013-----	2.2	26.9	48.9	50.1	51.6	53.5	59.2	65.7
2014-----	2.2	26.9	48.9	50.1	51.6	53.5	59.2	65.7
2015-----	2.3	26.9	48.9	50.1	51.6	53.5	59.2	65.7
2016-----	2.3	26.9	48.9	50.1	51.6	53.5	59.2	65.7
2017-----	2.3	26.9	48.9	50.1	51.6	53.5	59.2	65.7
2018-----	2.3	27.0	49.0	50.2	51.7	53.5	59.3	65.8
2019-----	2.3	27.0	49.0	50.2	51.7	53.5	59.3	65.8
2020-----	2.3	27.0	49.0	50.2	51.7	53.5	59.3	65.8

TABLE 7.—Series 1 projections, United States totals and net annual change for households, owners, type of unit occupied, and second homes, 1971–2020

(Thousand units)

Year	Households	Type of unit occupied			Second home	Net change from previous year				
		One-unit	Multiunit	Mobile home		Households	One-unit	Multiunit	Mobile home	Second home
1971	64,376	41,883	20,246	2,247	2,983	1,119	388	497	233	113
1972	65,646	42,350	20,788	2,509	3,098	1,270	467	542	261	115
1973	66,942	42,849	21,328	2,766	3,216	1,296	499	540	257	118
1974	68,250	43,330	21,887	3,033	3,334	1,308	481	559	267	118
1975	69,573	43,807	22,459	3,306	3,452	1,323	477	572	274	118
1976	70,893	44,288	23,027	3,578	3,571	1,320	481	567	272	119
1977	72,289	44,899	23,561	3,829	3,698	1,396	610	534	251	127
1978	73,711	45,533	24,097	4,080	3,827	1,422	635	536	251	130
1979	75,146	46,154	24,650	4,342	3,956	1,435	621	552	262	128
1980	76,593	46,781	25,206	4,606	4,087	1,447	626	557	264	131
1981	78,034	47,404	25,761	4,869	4,219	1,441	623	555	263	132
1982	79,484	48,151	26,245	5,089	4,366	1,451	747	484	220	147
1983	80,912	48,886	26,720	5,306	4,515	1,427	735	475	217	149
1984	82,321	49,625	27,181	5,516	4,666	1,410	739	461	210	151
1985	83,679	50,362	27,608	5,709	4,818	1,357	737	427	193	152
1986	84,966	51,103	27,984	5,878	4,974	1,287	741	376	169	157
1987	86,202	51,848	28,326	6,028	5,139	1,236	744	342	150	165
1988	87,392	52,596	28,638	6,159	5,316	1,190	748	312	131	177
1989	88,525	53,329	28,921	6,275	5,490	1,133	733	284	116	174
1990	89,747	54,080	29,254	6,413	5,670	1,222	751	333	138	180
1991	90,832	54,781	29,531	6,520	5,849	1,085	701	277	107	179
1992	91,979	55,487	29,851	6,641	6,062	1,147	706	320	121	213
1993	93,101	56,162	30,176	6,763	6,270	1,122	675	325	123	208
1994	94,272	56,840	30,531	6,901	6,483	1,170	678	355	138	213
1995	95,477	57,502	30,919	7,056	6,697	1,205	663	388	155	214
1996	96,676	58,140	31,319	7,217	6,917	1,199	638	400	161	220
1997	97,959	58,776	31,776	7,407	7,144	1,282	635	456	191	227
1998	99,294	59,392	32,279	7,624	7,379	1,335	616	503	216	236
1999	100,684	60,027	32,807	7,851	7,621	1,390	635	528	227	242
2000	102,120	60,656	33,368	8,096	7,866	1,435	630	561	245	245
2001	103,669	61,293	33,994	8,382	8,116	1,549	636	627	286	250
2002	105,220	61,930	34,623	8,668	8,370	1,552	637	628	286	254
2003	106,775	62,568	35,252	8,955	8,628	1,555	638	630	287	258
2004	108,333	63,206	35,884	9,243	8,890	1,558	639	631	288	262
2005	109,893	63,846	36,516	9,531	9,156	1,560	639	633	288	266
2006	111,566	64,603	37,143	9,821	9,427	1,673	757	627	289	271
2007	113,240	65,360	37,770	10,110	9,702	1,675	758	627	290	275
2008	114,917	66,118	38,398	10,401	9,980	1,677	758	628	290	279
2009	116,596	66,877	39,027	10,691	10,263	1,679	759	629	291	283
2010	118,276	67,637	39,657	10,982	10,550	1,681	760	630	291	287
2011	119,974	68,482	40,239	11,253	10,814	1,698	845	581	271	264
2012	121,673	69,328	40,820	11,525	11,082	1,699	846	582	271	268
2013	123,373	70,174	41,403	11,796	11,353	1,700	846	582	272	271
2014	125,074	71,020	41,986	12,068	11,628	1,701	846	583	272	274
2015	126,776	71,867	42,569	12,340	11,905	1,702	847	583	272	278
2016	128,504	72,739	43,156	12,609	12,198	1,727	871	587	268	292
2017	130,233	73,611	43,745	12,877	12,494	1,729	872	588	269	296
2018	131,964	74,484	44,334	13,147	12,793	1,731	873	589	269	300
2019	133,698	75,358	44,924	13,416	13,097	1,734	874	590	270	303
2020	135,434	76,232	45,515	13,686	13,404	1,736	875	591	270	307

TABLE 8.—Series 2 projections, United States totals and net annual change for households, owners, type of unit occupied, and second homes, 1971–2020

(Thousand units)

Year	Households	Type of unit occupied				Second home	Net change from previous year			
		One-unit	Multiunit	Mobile home	Households		One-unit	Multiunit	Mobile home	Second home
1971	64,325	41,867	20,222	2,236	2,830	1,067	372	473	222	85
1972	65,542	42,317	20,739	2,486	2,916	1,217	450	517	250	86
1973	66,782	42,798	21,253	2,731	3,004	1,241	481	514	245	89
1974	68,032	43,261	21,785	2,986	3,092	1,250	463	532	254	88
1975	69,294	43,720	22,329	3,246	3,179	1,262	459	543	260	87
1976	70,559	44,183	22,870	3,506	3,266	1,264	464	541	260	87
1977	71,897	44,775	23,377	3,744	3,360	1,338	592	508	239	94
1978	73,261	45,391	23,887	3,983	3,457	1,364	616	509	239	96
1979	74,636	45,993	24,412	4,232	3,551	1,375	602	525	249	94
1980	76,022	46,599	24,940	4,483	3,648	1,386	606	529	251	97
1981	77,409	47,204	25,470	4,735	3,744	1,387	605	530	252	97
1982	78,807	47,932	25,931	4,944	3,854	1,398	729	461	209	110
1983	80,182	48,648	26,384	5,151	3,965	1,375	715	453	207	110
1984	81,539	49,367	26,822	5,350	4,076	1,357	719	439	200	112
1985	82,841	50,084	27,224	5,532	4,189	1,302	717	402	182	112
1986	84,091	50,812	27,584	5,694	4,305	1,250	729	360	162	117
1987	85,290	51,544	27,909	5,836	4,428	1,198	731	325	142	123
1988	86,442	52,278	28,204	5,960	4,562	1,158	735	295	123	133
1989	87,536	52,998	28,470	6,068	4,692	1,094	720	266	108	130
1990	88,668	53,733	28,752	6,182	4,827	1,132	735	282	114	135
1991	89,643	54,416	28,966	6,261	4,959	975	683	214	79	133
1992	90,665	55,103	29,214	6,348	5,120	1,022	688	248	87	161
1993	91,651	55,759	29,457	6,434	5,276	985	656	244	86	156
1994	92,662	56,416	29,717	6,528	5,435	1,011	657	260	94	159
1995	93,658	57,038	29,991	6,629	5,594	996	621	274	101	159
1996	94,629	57,629	30,269	6,731	5,757	971	592	277	102	163
1997	95,659	58,212	30,589	6,857	5,924	1,030	583	321	126	168
1998	96,719	58,771	30,945	7,002	6,098	1,060	559	356	145	174
1999	97,813	59,343	31,316	7,153	6,276	1,094	572	371	151	178
2000	98,930	59,884	31,722	7,324	6,455	1,117	541	405	170	178
2001	100,131	60,401	32,195	7,535	6,635	1,202	517	473	212	180
2002	101,335	60,919	32,668	7,748	6,817	1,204	518	474	212	182
2003	102,541	61,437	33,143	7,960	7,002	1,206	518	475	213	185
2004	103,748	61,956	33,619	8,173	7,189	1,208	519	476	213	187
2005	104,958	62,475	34,096	8,387	7,379	1,210	519	477	214	190
2006	106,260	63,043	34,597	8,619	7,564	1,302	568	501	233	185
2007	107,563	63,612	35,099	8,852	7,752	1,303	569	502	233	188
2008	108,868	64,181	35,602	9,085	7,942	1,305	569	502	233	190
2009	110,175	64,751	36,105	9,319	8,134	1,307	570	503	233	192
2010	111,483	65,322	36,609	9,553	8,329	1,308	570	504	234	195
2011	112,789	65,947	37,069	9,773	8,500	1,306	625	460	220	171
2012	114,096	66,572	37,530	9,994	8,673	1,307	626	461	220	173
2013	115,403	67,198	37,991	10,214	8,847	1,308	626	461	221	175
2014	116,712	67,825	38,452	10,435	9,024	1,309	626	461	221	176
2015	118,021	68,451	38,914	10,656	9,202	1,310	627	462	221	178
2016	119,245	69,080	39,319	10,847	9,377	1,224	629	404	191	175
2017	120,470	69,709	39,723	11,038	9,554	1,225	629	405	191	177
2018	121,695	70,338	40,128	11,229	9,732	1,225	629	405	191	179
2019	122,922	70,968	40,534	11,420	9,912	1,226	630	405	191	180
2020	124,149	71,598	40,939	11,611	10,094	1,227	630	406	191	182

TABLE 9.—*Series 3 projections, United States totals and net annual change for households, owners, type of unit occupied, and second homes, 1971–2020*

(Thousand units)

Year	Households	Type of unit occupied			Second home	Net change from previous year			
		One-unit	Multiunit	Mobile home		Households	One-unit	Multiunit	Mobile home
1971	64,251	41,837	20,191	2,222	2,676	993	342	442	208
1972	65,390	42,257	20,676	2,457	2,732	1,140	420	485	235
1973	66,551	42,707	21,157	2,687	2,790	1,161	450	481	230
1974	67,718	43,138	21,655	2,926	2,847	1,167	431	497	238
1975	68,894	43,563	22,162	3,169	2,902	1,176	425	507	244
1976	70,097	44,001	22,678	3,418	2,958	1,203	438	517	249
1977	71,373	44,567	23,161	3,645	3,019	1,276	565	483	227
1978	72,671	45,154	23,645	3,872	3,082	1,298	587	484	227
1979	73,978	45,725	24,143	4,109	3,142	1,307	572	498	237
1980	75,293	46,301	24,645	4,348	3,203	1,316	575	502	239
1981	76,616	46,876	25,151	4,588	3,265	1,322	575	506	241
1982	77,947	47,572	25,588	4,787	3,337	1,331	696	437	198
1983	79,254	48,255	26,017	4,982	3,410	1,307	682	429	196
1984	80,542	48,939	26,431	5,171	3,482	1,288	685	415	189
1985	81,772	49,621	26,809	5,342	3,555	1,230	682	377	171
1986	82,961	50,320	27,147	5,494	3,631	1,189	699	338	152
1987	84,098	51,022	27,450	5,626	3,712	1,138	702	304	132
1988	85,192	51,728	27,724	5,740	3,801	1,093	706	274	114
1989	86,223	52,417	27,968	5,838	3,887	1,032	689	244	98
1990	87,267	53,119	28,212	5,936	3,975	1,044	702	244	97
1991	88,154	53,775	28,384	5,995	4,062	886	656	172	59
1992	89,093	54,440	28,589	6,063	4,171	939	666	205	68
1993	89,986	55,073	28,786	6,127	4,276	893	632	196	64
1994	90,907	55,707	29,000	6,200	4,382	922	634	214	73
1995	91,782	56,295	29,214	6,273	4,487	875	588	214	72
1996	92,634	56,857	29,431	6,346	4,595	852	562	217	73
1997	93,536	57,409	29,687	6,441	4,706	902	552	256	94
1998	94,461	57,936	29,973	6,552	4,821	925	528	286	111
1999	95,410	58,476	30,267	6,666	4,938	949	539	295	114
2000	96,369	58,975	30,594	6,800	5,055	959	499	327	133
2001	97,345	59,423	30,961	6,961	5,170	976	449	366	161
2002	98,322	59,873	31,327	7,122	5,287	978	449	367	161
2003	99,301	60,322	31,695	7,284	5,405	979	450	367	162
2004	100,282	60,773	32,063	7,446	5,524	980	450	368	162
2005	101,263	61,223	32,432	7,608	5,644	982	451	369	162
2006	102,291	61,699	32,809	7,783	5,758	1,027	476	377	175
2007	103,320	62,175	33,187	7,958	5,873	1,029	476	378	175
2008	104,351	62,652	33,565	8,134	5,989	1,031	477	378	175
2009	105,383	63,130	33,944	8,309	6,106	1,033	478	379	176
2010	106,418	63,609	34,324	8,485	6,225	1,034	479	380	176
2011	107,343	64,075	34,633	8,635	6,320	926	466	309	150
2012	108,270	64,542	34,942	8,785	6,415	926	467	309	150
2013	109,197	65,009	35,252	8,936	6,512	927	467	310	150
2014	110,125	65,477	35,562	9,086	6,609	928	468	310	150
2015	111,053	65,945	35,872	9,237	6,707	929	468	310	150
2016	111,861	66,365	36,133	9,363	6,795	808	420	261	127
2017	112,670	66,786	36,394	9,490	6,884	809	421	261	127
2018	113,479	67,207	36,655	9,617	6,973	809	421	261	127
2019	114,289	67,628	36,917	9,744	7,063	810	421	261	127
2020	115,100	68,050	37,178	9,872	7,154	811	422	262	127

TABLE 10.—*Series 1 projections of total United States households, by age class, 1971–2020*

(Thousands)

Year	Age class							
	15–19	20–24	25–29	30–34	35–44	45–54	55–64	65+
1971-----	358	4,218	6,383	5,728	11,528	12,462	10,990	12,710
1972-----	372	4,259	6,916	5,974	11,460	12,543	11,165	12,957
1973-----	385	4,389	7,215	6,348	11,452	12,597	11,343	13,214
1974-----	396	4,540	7,592	6,625	11,484	12,607	11,523	13,482
1975-----	406	4,724	7,958	6,894	11,552	12,569	11,708	13,762
1976-----	418	4,886	8,378	7,092	11,695	12,488	11,891	14,046
1977-----	426	5,053	8,402	7,663	11,964	12,368	12,073	14,341
1978-----	432	5,192	8,591	7,969	12,426	12,212	12,247	14,643
1979-----	437	5,316	8,820	8,360	12,824	12,039	12,404	14,946
1980-----	437	5,416	9,110	8,736	13,195	11,914	12,539	15,246
1981-----	430	5,537	9,360	9,166	13,551	11,803	12,649	15,538
1982-----	423	5,606	9,618	9,167	14,386	11,720	12,738	15,826
1983-----	414	5,651	9,820	9,347	15,073	11,694	12,794	16,117
1984-----	408	5,676	9,994	9,567	15,743	11,709	12,805	16,420
1985-----	408	5,652	10,121	9,852	16,388	11,759	12,763	16,736
1986-----	416	5,524	10,292	10,096	17,022	11,878	12,684	17,054
1987-----	429	5,389	10,370	10,348	17,598	12,126	12,562	17,379
1988-----	447	5,241	10,406	10,541	18,081	12,569	12,408	17,699
1989-----	468	5,128	10,364	10,703	18,686	12,948	12,228	18,001
1990-----	489	5,094	10,323	10,815	19,337	13,302	12,110	18,277
1991-----	511	5,146	10,055	10,948	20,013	13,632	12,001	18,526
1992-----	533	5,263	9,778	11,033	20,259	14,443	11,922	18,748
1993-----	556	5,447	9,480	11,047	20,622	15,107	11,902	18,941
1994-----	579	5,650	9,244	11,081	20,993	15,751	11,922	19,102
1995-----	602	5,860	9,151	10,915	21,377	16,367	11,978	19,227
1996-----	625	6,063	9,217	10,607	21,768	16,973	12,109	19,313
1997-----	648	6,271	9,397	10,311	22,067	17,524	12,372	19,370
1998-----	669	6,482	9,693	9,984	22,257	17,983	12,834	19,392
1999-----	688	6,696	10,021	9,723	22,386	18,559	13,225	19,386
2000-----	706	6,906	10,358	9,612	22,362	19,178	13,590	19,407
2001-----	718	7,072	10,699	9,849	22,097	19,564	14,215	19,453
2002-----	731	7,239	11,041	10,086	21,832	19,951	14,841	19,500
2003-----	744	7,406	11,384	10,324	21,567	20,337	15,467	19,546
2004-----	756	7,575	11,728	10,562	21,302	20,724	16,094	19,592
2005-----	769	7,744	12,073	10,800	21,036	21,112	16,720	19,638
2006-----	779	7,814	12,341	11,139	21,003	21,294	17,286	19,909
2007-----	790	7,884	12,610	11,477	20,971	21,477	17,852	20,179
2008-----	800	7,954	12,880	11,816	20,938	21,660	18,419	20,450
2009-----	811	8,025	13,150	12,156	20,905	21,843	18,986	20,721
2010-----	822	8,096	13,420	12,495	20,872	22,027	19,553	20,992
2011-----	838	8,142	13,514	12,760	21,450	21,765	19,941	21,564
2012-----	855	8,188	13,609	13,025	22,028	21,503	20,329	22,136
2013-----	872	8,234	13,703	13,290	22,607	21,241	20,718	22,707
2014-----	889	8,281	13,798	13,555	23,186	20,979	21,107	23,279
2015-----	906	8,327	13,893	13,821	23,766	20,717	21,496	23,851
2016-----	929	8,432	13,945	13,912	24,374	20,691	21,675	24,547
2017-----	953	8,537	13,997	14,002	24,983	20,664	21,853	25,243
2018-----	977	8,642	14,049	14,093	25,592	20,637	22,032	25,941
2019-----	1,001	8,748	14,102	14,184	26,202	20,611	22,211	26,639
2020-----	1,026	8,854	14,154	14,275	26,812	20,584	22,390	27,338

TABLE 11.—*Series 1 projections of yearly increment of United States households, by age class, 1971–2020*

(Thousands)

Year	Age class							
	15–19	20–24	25–29	30–34	35–44	45–54	55–64	65+
1971	14	247	201	166	-85	111	195	269
1972	15	42	533	246	-68	81	175	246
1973	12	130	298	375	-8	54	177	257
1974	11	151	377	276	33	10	181	268
1975	10	185	366	269	68	-38	185	279
1976	12	162	420	198	143	-81	183	284
1977	8	167	24	571	269	-120	182	295
1978	6	139	189	306	462	-156	173	302
1979	5	124	229	391	398	-172	157	303
1980	1	100	290	376	371	-126	135	301
1981	-7	121	250	430	355	-111	110	292
1982	-8	69	259	1	835	-82	89	288
1983	-9	45	202	180	688	-26	56	291
1984	-6	25	174	220	669	15	11	303
1985	0	-24	127	285	645	50	-42	316
1986	8	-128	172	244	634	118	-78	318
1987	13	-135	78	252	576	248	-122	325
1988	19	-148	35	192	483	443	-154	320
1989	20	-113	-41	162	605	379	-181	302
1990	21	-34	-42	113	651	354	-118	276
1991	22	52	-268	132	676	330	-109	249
1992	22	116	-277	85	246	811	-79	222
1993	23	184	-298	14	363	664	-20	193
1994	23	203	-235	-16	371	644	20	160
1995	23	210	-94	-115	384	615	57	125
1996	23	203	67	-308	392	607	131	86
1997	22	208	179	-296	298	550	263	57
1998	21	211	297	-328	190	459	462	22
1999	20	213	328	-261	129	577	391	-6
2000	18	210	337	-111	-24	619	365	22
2001	12	166	341	237	-265	386	625	46
2002	12	167	342	237	-265	386	626	46
2003	13	168	343	238	-265	387	626	46
2004	13	168	344	238	-265	387	626	46
2005	13	169	345	238	-266	387	627	46
2006	10	70	268	338	-33	183	566	270
2007	10	70	269	339	-33	183	566	270
2008	11	70	269	339	-33	183	566	271
2009	11	71	270	339	-33	183	567	271
2010	11	71	271	339	-33	183	567	271
2011	16	46	94	265	578	-262	388	572
2012	17	46	94	265	578	-262	388	572
2013	17	46	94	265	579	-262	389	572
2014	17	46	95	265	579	-262	389	572
2015	17	47	95	266	580	-262	389	572
2016	23	104	52	91	608	-27	179	696
2017	24	105	52	91	609	-27	179	697
2018	24	105	52	91	609	-27	179	697
2019	24	106	52	91	610	-27	179	698
2020	25	106	52	91	610	-27	179	699

TABLE 12.—*Series 2 projections of total United States households, by age class, 1971–2020*

(Thousands)

Year	Age class							
	15–19	20–24	25–29	30–34	35–44	45–54	55–64	65+
1971-----	356	4,200	6,377	5,723	11,523	12,457	10,987	12,702
1972-----	368	4,223	6,904	5,964	11,451	12,533	11,158	12,940
1973-----	379	4,334	7,195	6,333	11,438	12,583	11,331	13,189
1974-----	388	4,465	7,565	6,603	11,466	12,588	11,508	13,449
1975-----	395	4,628	7,923	6,866	11,530	12,545	11,688	13,719
1976-----	405	4,772	8,334	7,061	11,668	12,460	11,867	13,993
1977-----	411	4,920	8,351	7,626	11,931	12,335	12,045	14,278
1978-----	415	5,040	8,532	7,927	12,387	12,175	12,213	14,570
1979-----	418	5,146	8,752	8,313	12,780	11,999	12,366	14,863
1980-----	416	5,228	9,033	8,684	13,144	11,869	12,496	15,152
1981-----	408	5,333	9,273	9,108	13,493	11,754	12,602	15,438
1982-----	399	5,389	9,521	9,105	14,319	11,667	12,686	15,720
1983-----	390	5,422	9,713	9,281	14,998	11,637	12,738	16,004
1984-----	382	5,434	9,877	9,495	15,658	11,647	12,744	16,300
1985-----	377	5,401	9,994	9,774	16,293	11,693	12,698	16,609
1986-----	377	5,272	10,156	10,013	16,918	11,811	12,620	16,924
1987-----	381	5,137	10,225	10,259	17,484	12,058	12,499	17,247
1988-----	389	4,990	10,252	10,446	17,957	12,499	12,346	17,565
1989-----	397	4,876	10,203	10,602	18,551	12,875	12,166	17,865
1990-----	409	4,789	10,154	10,710	19,190	13,227	12,049	18,139
1991-----	422	4,766	9,887	10,837	19,854	13,556	11,941	18,381
1992-----	435	4,791	9,611	10,917	20,090	14,362	11,862	18,596
1993-----	451	4,869	9,315	10,926	20,442	15,022	11,842	18,782
1994-----	460	4,952	9,080	10,907	20,802	15,663	11,862	18,936
1995-----	476	5,076	8,894	10,789	21,175	16,275	11,918	19,055
1996-----	491	5,206	8,832	10,480	21,555	16,879	12,048	19,140
1997-----	505	5,337	8,859	10,184	21,842	17,426	12,310	19,196
1998-----	519	5,471	8,980	9,856	22,022	17,882	12,770	19,219
1999-----	533	5,608	9,107	9,596	22,141	18,456	13,159	19,213
2000-----	546	5,749	9,311	9,388	22,109	19,071	13,522	19,234
2001-----	555	5,878	9,532	9,459	21,828	19,455	14,144	19,280
2002-----	564	6,008	9,754	9,530	21,547	19,839	14,767	19,326
2003-----	574	6,138	9,977	9,601	21,266	20,224	15,390	19,372
2004-----	583	6,269	10,200	9,672	20,984	20,609	16,013	19,418
2005-----	593	6,401	10,424	9,743	20,702	20,994	16,637	19,464
2006-----	598	6,468	10,638	9,960	20,489	21,176	17,200	19,732
2007-----	603	6,536	10,852	10,177	20,275	21,358	17,763	20,000
2008-----	608	6,604	11,066	10,394	20,061	21,540	18,327	20,269
2009-----	613	6,672	11,281	10,612	19,848	21,722	18,891	20,537
2010-----	618	6,741	11,496	10,829	19,633	21,904	19,455	20,806
2011-----	623	6,753	11,601	11,040	19,926	21,625	19,841	21,379
2012-----	629	6,765	11,706	11,250	20,219	21,346	20,228	21,953
2013-----	635	6,777	11,811	11,461	20,512	21,066	20,614	22,526
2014-----	640	6,789	11,917	11,672	20,805	20,786	21,001	23,100
2015-----	646	6,801	12,022	11,884	21,099	20,506	21,389	23,675
2016-----	655	6,815	12,031	11,986	21,532	20,301	21,566	24,358
2017-----	665	6,830	12,040	12,088	21,965	20,095	21,744	25,042
2018-----	675	6,844	12,050	12,191	22,398	19,889	21,922	25,727
2019-----	685	6,858	12,059	12,293	22,832	19,683	22,100	26,412
2020-----	694	6,872	12,068	12,396	23,266	19,476	22,279	27,097

TABLE 13.—*Series 2 projections of yearly increment of United States households, by age class, 1971–2020*

(Thousands)

Year	Age class							
	15-19	20-24	25-29	30-34	35-44	45-54	55-64	65+
1971-----	12	229	195	162	-90	107	191	261
1972-----	12	24	527	241	-72	76	171	238
1973-----	10	111	291	369	-12	50	173	249
1974-----	9	131	370	270	28	5	177	259
1975-----	7	163	358	262	63	-43	181	270
1976-----	10	144	411	195	138	-85	178	274
1977-----	6	148	17	565	263	-125	178	285
1978-----	4	120	181	301	456	-160	169	292
1979-----	3	106	220	386	392	-176	153	292
1980-----	-1	82	280	371	365	-130	130	290
1981-----	-8	105	240	424	349	-115	106	286
1982-----	-9	56	248	-2	826	-86	84	282
1983-----	-10	33	192	175	679	-30	52	285
1984-----	-7	13	164	215	660	10	6	296
1985-----	-5	-34	117	279	636	46	-46	309
1986-----	0	-129	161	239	624	118	-78	315
1987-----	4	-135	69	246	566	247	-121	323
1988-----	8	-147	27	187	473	441	-153	318
1989-----	8	-114	-48	157	594	377	-180	299
1990-----	12	-87	-49	108	639	352	-117	274
1991-----	13	-23	-267	127	664	329	-108	242
1992-----	13	26	-276	80	236	806	-78	215
1993-----	16	78	-297	10	352	660	-20	186
1994-----	9	82	-234	-20	360	641	20	154
1995-----	16	124	-186	-118	373	612	56	119
1996-----	14	129	-62	-308	380	603	130	85
1997-----	14	131	27	-296	287	547	262	56
1998-----	14	134	121	-327	180	457	460	22
1999-----	14	137	128	-261	120	574	389	-6
2000-----	13	140	203	-208	-32	615	363	22
2001-----	9	129	221	71	-281	384	622	46
2002-----	9	130	222	71	-281	384	623	46
2003-----	9	130	223	71	-281	385	623	46
2004-----	9	131	223	71	-282	385	623	46
2005-----	10	132	224	71	-282	385	624	46
2006-----	5	68	214	217	-213	182	563	268
2007-----	5	68	214	217	-214	182	563	268
2008-----	5	68	214	217	-214	182	564	268
2009-----	5	68	215	217	-214	182	564	269
2010-----	5	69	215	217	-214	182	564	269
2011-----	6	12	105	211	293	-279	386	573
2012-----	6	12	105	211	293	-279	386	573
2013-----	6	12	105	211	293	-280	387	574
2014-----	6	12	105	211	293	-280	387	574
2015-----	6	12	105	211	294	-280	387	574
2016-----	10	14	9	102	433	-206	178	684
2017-----	10	14	9	102	433	-206	178	684
2018-----	10	14	9	102	434	-206	178	684
2019-----	10	14	9	103	434	-206	178	685
2020-----	10	14	9	103	434	-206	178	685

TABLE 14.—*Series 3 projections of total United States households, by age class, 1971–2020*

(Thousands)

Year	Age class							
	15–19	20–24	25–29	30–34	35–44	45–54	55–64	65+
1971-----	354	4,185	6,366	5,718	11,509	12,452	10,975	12,690
1972-----	364	4,195	6,880	5,954	11,424	12,524	11,135	12,916
1973-----	372	4,290	7,157	6,317	11,398	12,569	11,296	13,152
1974-----	380	4,405	7,512	6,582	11,412	12,569	11,461	13,398
1975-----	385	4,552	7,854	6,838	11,462	12,521	11,629	13,654
1976-----	392	4,686	8,258	7,023	11,585	12,436	11,798	13,919
1977-----	396	4,824	8,271	7,576	11,833	12,312	11,967	14,194
1978-----	398	4,934	8,447	7,866	12,272	12,152	12,126	14,475
1979-----	399	5,030	8,662	8,239	12,645	11,976	12,270	14,756
1980-----	396	5,102	8,936	8,596	12,991	11,847	12,390	15,035
1981-----	386	5,202	9,170	9,006	13,321	11,732	12,491	15,309
1982-----	376	5,253	9,412	8,993	14,120	11,645	12,570	15,579
1983-----	365	5,281	9,598	9,155	14,772	11,615	12,617	15,851
1984-----	356	5,290	9,756	9,355	15,404	11,626	12,619	16,135
1985-----	348	5,254	9,868	9,619	16,011	11,671	12,570	16,431
1986-----	344	5,125	10,024	9,842	16,612	11,789	12,493	16,733
1987-----	343	4,991	10,088	10,072	17,155	12,035	12,372	17,042
1988-----	346	4,845	10,110	10,243	17,605	12,475	12,221	17,346
1989-----	349	4,732	10,059	10,385	18,174	12,851	12,043	17,631
1990-----	357	4,620	10,007	10,478	18,786	13,203	11,927	17,891
1991-----	366	4,557	9,740	10,593	19,428	13,531	11,820	18,119
1992-----	375	4,540	9,465	10,663	19,652	14,335	11,742	18,320
1993-----	384	4,570	9,169	10,664	19,989	14,994	11,722	18,492
1994-----	393	4,601	8,935	10,637	20,333	15,634	11,742	18,633
1995-----	401	4,694	8,702	10,514	20,690	16,245	11,798	18,738
1996-----	409	4,800	8,569	10,209	21,061	16,847	11,926	18,811
1997-----	417	4,906	8,520	9,917	21,342	17,393	12,186	18,855
1998-----	424	5,012	8,557	9,594	21,518	17,849	12,641	18,866
1999-----	431	5,116	8,594	9,337	21,635	18,421	13,026	18,849
2000-----	436	5,219	8,746	9,084	21,604	19,035	13,386	18,859
2001-----	438	5,289	8,928	9,056	21,320	19,419	14,002	18,893
2002-----	440	5,360	9,111	9,028	21,036	19,802	14,618	18,927
2003-----	442	5,431	9,295	9,001	20,751	20,186	15,235	18,961
2004-----	444	5,502	9,480	8,973	20,467	20,570	15,852	18,995
2005-----	446	5,573	9,665	8,945	20,182	20,955	16,469	19,028
2006-----	445	5,576	9,783	9,148	19,898	21,128	17,027	19,285
2007-----	445	5,580	9,901	9,353	19,614	21,302	17,584	19,541
2008-----	444	5,583	10,019	9,558	19,330	21,476	18,142	19,798
2009-----	444	5,587	10,138	9,765	19,046	21,649	18,701	20,054
2010-----	443	5,590	10,256	9,973	18,761	21,823	19,260	20,311
2011-----	445	5,563	10,259	10,094	18,943	21,527	19,642	20,871
2012-----	447	5,536	10,262	10,214	19,125	21,231	20,025	21,430
2013-----	448	5,509	10,265	10,335	19,308	20,935	20,407	21,991
2014-----	450	5,481	10,268	10,455	19,490	20,639	20,791	22,551
2015-----	451	5,454	10,270	10,576	19,672	20,343	21,174	23,112
2016-----	456	5,454	10,218	10,579	19,970	20,055	21,350	23,779
2017-----	460	5,453	10,166	10,582	20,268	19,768	21,526	24,447
2018-----	464	5,453	10,113	10,585	20,566	19,480	21,703	25,116
2019-----	469	5,452	10,060	10,588	20,864	19,192	21,879	25,784
2020-----	473	5,452	10,008	10,591	21,163	18,905	22,055	26,454

TABLE 15.—*Series 3 projections of yearly increment of United States households, by age class, 1971–2020*

(Thousands)

Year	Age class							
	15–19	20–24	25–29	30–34	35–44	45–54	55–64	65+
1971.....	10	215	184	157	-104	102	180	249
1972.....	10	9	514	236	-86	71	160	226
1973.....	8	95	278	363	-26	45	161	236
1974.....	7	115	355	264	15	1	164	246
1975.....	5	146	342	256	50	-48	168	257
1976.....	7	134	404	186	124	-85	169	264
1977.....	4	138	14	553	248	-124	169	275
1978.....	2	110	176	290	438	-160	160	281
1979.....	1	96	214	373	374	-176	143	281
1980.....	-3	72	274	357	346	-130	121	278
1981.....	-10	99	234	409	329	-115	101	274
1982.....	-10	51	242	-13	799	-86	79	270
1983.....	-11	29	186	162	652	-30	47	272
1984.....	-9	9	158	201	632	10	2	284
1985.....	-8	-36	112	263	607	46	-50	296
1986.....	-4	-129	155	223	601	118	-77	302
1987.....	-1	-134	64	230	543	246	-120	309
1988.....	3	-146	22	171	450	440	-152	304
1989.....	3	-114	-52	141	569	376	-178	285
1990.....	8	-112	-52	93	612	352	-116	260
1991.....	9	-62	-267	116	642	328	-107	228
1992.....	9	-17	-275	70	224	805	-78	201
1993.....	9	30	-296	1	337	659	-20	172
1994.....	9	31	-234	-28	344	640	20	140
1995.....	9	93	-232	-123	357	611	56	106
1996.....	8	106	-133	-305	371	602	129	73
1997.....	8	106	-50	-292	281	546	259	44
1998.....	7	106	37	-322	176	456	455	11
1999.....	6	105	37	-257	117	573	385	-17
2000.....	5	102	152	-253	-31	614	360	10
2001.....	2	70	182	-28	-284	383	616	34
2002.....	2	71	183	-28	-284	384	616	34
2003.....	2	71	184	-28	-284	384	617	34
2004.....	2	71	185	-28	-285	384	617	34
2005.....	2	71	185	-28	-285	384	618	34
2006.....	-0	3	118	203	-284	174	557	256
2007.....	-0	3	118	204	-284	174	558	256
2008.....	-1	3	118	206	-284	174	558	257
2009.....	-1	3	118	207	-284	174	558	257
2010.....	-1	3	118	208	-285	174	559	257
2011.....	2	-27	3	120	182	-296	382	560
2012.....	2	-27	3	120	182	-296	383	560
2013.....	2	-27	3	121	182	-296	383	560
2014.....	2	-27	3	121	182	-296	383	561
2015.....	2	-27	3	121	182	-296	383	561
2016.....	4	-0	-52	3	298	-288	176	668
2017.....	4	-0	-52	3	298	-288	176	668
2018.....	4	-0	-53	3	298	-288	176	668
2019.....	4	-0	-53	3	298	-288	176	669
2020.....	4	-0	-53	3	299	-288	177	669

TABLE 16.—*Series 1 projections of housing demand in the Northeast, by components, 1971–2020*

Year	Household formation	Vacancy change	Replacements			Housing stock			Vacancy rate	Replacement rate	
			Conventional	Mobile	Net mobile additions	Total	Occupied	Vacant		Conventional units	All units
	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Percent	Percent	Percent
1971...	207	115	89	18	28	17,326	15,732	1,594	9.20	.53	.62
1972...	243	83	93	20	33	17,652	15,975	1,677	9.50	.54	.64
1973...	249	66	98	22	33	17,967	16,224	1,743	9.70	.56	.67
1974...	252	57	102	24	34	18,276	16,476	1,800	9.85	.57	.69
1975...	255	59	107	26	35	18,590	16,731	1,859	10.00	.59	.71
1976...	258	45	111	28	35	18,893	16,989	1,904	10.08	.60	.73
1977...	276	48	115	29	33	19,217	17,264	1,952	10.16	.62	.75
1978...	282	49	119	31	33	19,548	17,546	2,002	10.24	.63	.77
1979...	284	50	124	33	34	19,882	17,830	2,052	10.32	.64	.79
1980...	287	51	128	35	35	20,220	18,117	2,103	10.40	.66	.81
1981...	275	50	130	36	33	20,546	18,393	2,153	10.48	.66	.81
1982...	277	51	132	38	28	20,874	18,670	2,204	10.56	.66	.81
1983...	272	51	134	39	27	21,197	18,942	2,255	10.64	.66	.82
1984...	267	51	136	40	26	21,515	19,209	2,306	10.72	.66	.82
1985...	255	50	138	41	24	21,820	19,464	2,357	10.80	.66	.82
1986...	230	48	140	42	20	22,098	19,693	2,404	10.88	.66	.82
1987...	217	47	142	43	17	22,361	19,911	2,451	10.96	.66	.83
1988...	206	46	144	43	15	22,613	20,117	2,497	11.04	.66	.83
1989...	193	44	145	44	13	22,850	20,309	2,541	11.12	.66	.83
1990...	213	47	147	45	16	23,110	20,522	2,588	11.20	.66	.83
1991...	174	53	148	45	11	23,338	20,696	2,642	11.32	.66	.83
1992...	188	56	150	45	13	23,581	20,884	2,698	11.44	.66	.83
1993...	182	56	151	46	13	23,819	21,065	2,753	11.56	.66	.83
1994...	192	58	153	46	15	24,068	21,257	2,811	11.68	.66	.83
1995...	199	59	154	47	17	24,327	21,457	2,871	11.80	.66	.83
1996...	190	64	156	48	17	24,582	21,647	2,935	11.94	.66	.83
1997...	209	68	157	49	20	24,858	21,855	3,003	12.08	.66	.83
1998...	220	70	159	50	23	25,148	22,075	3,073	12.22	.66	.83
1999...	232	73	161	51	25	25,453	22,307	3,146	12.36	.66	.83
2000...	241	75	163	52	27	25,769	22,548	3,221	12.50	.66	.83
2001...	278	76	164	53	34	26,123	22,826	3,297	12.62	.66	.83
2002...	278	77	167	55	34	26,477	23,104	3,373	12.74	.66	.84
2003...	278	78	169	56	34	26,833	23,383	3,451	12.86	.66	.84
2004...	279	79	171	58	34	27,191	23,661	3,529	12.98	.66	.84
2005...	279	80	173	59	34	27,549	23,940	3,609	13.10	.66	.84
2006...	319	80	175	60	36	27,948	24,259	3,689	13.20	.66	.84
2007...	319	81	178	62	36	28,348	24,578	3,770	13.30	.66	.84
2008...	319	82	180	63	36	28,749	24,896	3,852	13.40	.66	.85
2009...	319	83	182	64	36	29,151	25,215	3,935	13.50	.66	.85
2010...	319	84	185	66	36	29,554	25,535	4,019	13.60	.66	.85
2011...	317	78	187	67	33	29,949	25,852	4,097	13.68	.66	.85
2012...	317	78	190	68	33	30,345	26,169	4,175	13.76	.66	.85
2013...	317	79	192	69	33	30,741	26,486	4,255	13.84	.66	.85
2014...	317	80	195	70	33	31,138	26,803	4,334	13.92	.66	.85
2015...	317	81	197	71	33	31,535	27,120	4,415	14.00	.66	.85
2016...	343	78	199	73	35	31,957	27,463	4,493	14.06	.66	.85
2017...	344	79	202	74	35	32,379	27,807	4,572	14.12	.66	.85
2018...	344	79	205	75	35	32,802	28,151	4,651	14.18	.66	.85
2019...	344	80	207	76	35	33,226	28,495	4,731	14.24	.66	.85
2020...	344	81	210	77	35	33,651	28,839	4,812	14.30	.66	.85

TABLE 17.—Series 1 projections of housing demand in the North Central region, by components, 1971-2020

Year	Household formation	Vacancy change	Replacements			Housing stock			Vacancy rate	Replacement rate	
			Conventional	Mobile	Net mobile additions	Total	Occupied	Vacant		Conventional units	All units
	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Percent	Percent	Percent
1971--	255	130	173	37	64	19,626	17,899	1,727	8.80	.91	1.07
1972--	297	95	182	41	73	20,018	18,196	1,822	9.10	.95	1.12
1973--	304	75	191	45	72	20,397	18,500	1,897	9.30	.98	1.16
1974--	307	66	201	49	75	20,770	18,807	1,963	9.45	1.02	1.20
1975--	311	67	211	53	77	21,148	19,117	2,030	9.60	1.05	1.25
1976--	316	48	216	57	78	21,511	19,433	2,078	9.66	1.06	1.27
1977--	336	51	222	61	73	21,898	19,770	2,129	9.72	1.07	1.29
1978--	344	52	227	65	73	22,294	20,113	2,180	9.78	1.09	1.31
1979--	347	53	233	68	76	22,693	20,460	2,233	9.84	1.10	1.33
1980--	350	54	239	72	77	23,096	20,810	2,287	9.90	1.11	1.35
1981--	340	58	244	76	75	23,495	21,150	2,345	9.98	1.11	1.36
1982--	343	59	248	79	62	23,897	21,493	2,404	10.06	1.11	1.37
1983--	336	59	252	81	61	24,292	21,829	2,463	10.14	1.12	1.37
1984--	331	59	256	84	59	24,682	22,160	2,523	10.22	1.12	1.38
1985--	317	58	260	86	54	25,058	22,477	2,581	10.30	1.12	1.38
1986--	291	56	264	88	46	25,405	22,768	2,637	10.38	1.12	1.39
1987--	277	55	268	90	40	25,736	23,044	2,692	10.46	1.12	1.39
1988--	264	54	271	91	35	26,055	23,309	2,746	10.54	1.12	1.39
1989--	249	53	274	93	31	26,356	23,557	2,799	10.62	1.13	1.39
1990--	272	56	277	94	37	26,685	23,829	2,855	10.70	1.12	1.39
1991--	230	64	281	95	27	26,978	24,059	2,919	10.82	1.13	1.39
1992--	246	67	284	96	31	27,291	24,305	2,986	10.94	1.13	1.39
1993--	239	67	287	97	31	27,597	24,544	3,052	11.06	1.13	1.39
1994--	251	69	290	98	35	27,917	24,796	3,121	11.18	1.13	1.39
1995--	260	71	293	100	40	28,248	25,056	3,192	11.30	1.13	1.39
1996--	253	77	296	102	41	28,578	25,309	3,269	11.44	1.13	1.39
1997--	274	81	299	104	49	28,933	25,583	3,350	11.58	1.12	1.39
1998--	287	84	303	106	56	29,304	25,870	3,434	11.72	1.12	1.39
1999--	301	87	306	108	59	29,693	26,171	3,522	11.86	1.12	1.40
2000--	313	90	310	111	64	30,096	26,484	3,611	12.00	1.12	1.40
2001--	357	90	313	114	79	30,543	26,841	3,702	12.12	1.12	1.40
2002--	358	92	318	117	79	30,992	27,199	3,793	12.24	1.12	1.40
2003--	358	93	322	120	79	31,443	27,557	3,886	12.36	1.12	1.41
2004--	358	94	326	123	79	31,896	27,915	3,981	12.48	1.12	1.41
2005--	359	96	330	127	80	32,350	28,274	4,076	12.60	1.12	1.41
2006--	383	93	334	130	79	32,825	28,656	4,169	12.70	1.12	1.41
2007--	383	94	339	133	79	33,302	29,039	4,263	12.80	1.12	1.42
2008--	383	95	343	135	80	33,780	29,422	4,358	12.90	1.12	1.42
2009--	383	96	348	138	80	34,259	29,806	4,454	13.00	1.12	1.42
2010--	383	97	352	141	80	34,740	30,189	4,551	13.10	1.12	1.42
2011--	407	94	357	144	78	35,241	30,596	4,645	13.18	1.12	1.42
2012--	407	95	362	147	78	35,743	31,004	4,740	13.26	1.12	1.42
2013--	407	96	366	149	78	36,246	31,411	4,835	13.34	1.12	1.42
2014--	408	97	371	152	78	36,751	31,819	4,932	13.42	1.12	1.42
2015--	408	98	376	154	78	37,256	32,226	5,030	13.50	1.12	1.42
2016--	412	90	381	157	77	37,758	32,638	5,120	13.56	1.12	1.42
2017--	412	91	386	159	77	38,262	33,050	5,211	13.62	1.12	1.42
2018--	412	92	391	162	77	38,766	33,463	5,303	13.68	1.12	1.42
2019--	413	93	395	164	77	39,272	33,876	5,396	13.74	1.12	1.42
2020--	413	93	400	166	77	39,778	34,289	5,489	13.80	1.12	1.42

TABLE 18.—*Series 1 projections of housing demand in the South, by components, 1971–2020*

Year	Household formation	Vacancy change	Replacements			Housing stock			Vacancy rate	Replacement rate	
			Conventional	Mobile	Net mobile additions	Total	Occupied	Vacant		Conventional units	All units
	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Percent	Percent	Percent
1971...	375	159	270	39	90	21,513	19,340	2,173	10.10	1.30	1.44
1972...	420	121	278	43	99	22,054	19,761	2,294	10.40	1.31	1.46
1973...	428	100	286	47	98	22,583	20,189	2,394	10.60	1.32	1.47
1974...	432	90	293	52	101	23,105	20,621	2,484	10.75	1.33	1.49
1975...	437	92	301	56	104	23,634	21,058	2,576	10.90	1.34	1.51
1976...	444	81	308	61	105	24,159	21,502	2,658	11.00	1.34	1.53
1977...	467	85	314	65	96	24,711	21,969	2,743	11.10	1.35	1.54
1978...	475	88	322	69	96	25,274	22,443	2,831	11.20	1.35	1.55
1979...	479	90	329	73	100	25,843	22,922	2,920	11.30	1.35	1.56
1980...	483	91	337	78	101	26,417	23,405	3,012	11.40	1.36	1.57
1981...	488	87	344	82	103	26,992	23,893	3,099	11.48	1.36	1.58
1982...	492	89	351	85	86	27,572	24,385	3,187	11.56	1.36	1.58
1983...	485	89	359	89	85	28,146	24,870	3,276	11.64	1.37	1.59
1984...	479	89	366	92	82	28,714	25,349	3,365	11.72	1.37	1.60
1985...	463	88	374	95	76	29,266	25,813	3,453	11.80	1.37	1.60
1986...	448	87	380	98	68	29,801	26,261	3,540	11.88	1.37	1.60
1987...	433	86	387	100	60	30,320	26,694	3,626	11.96	1.37	1.61
1988...	419	85	394	102	53	30,824	27,113	3,711	12.04	1.38	1.61
1989...	402	83	400	104	47	31,309	27,515	3,795	12.12	1.38	1.61
1990...	430	88	406	106	56	31,827	27,944	3,883	12.20	1.38	1.61
1991...	392	95	413	107	45	32,314	28,337	3,978	12.31	1.38	1.61
1992...	412	99	419	109	50	32,825	28,749	4,077	12.42	1.38	1.61
1993...	405	99	425	111	51	33,329	29,153	4,176	12.53	1.38	1.61
1994...	420	103	432	113	57	33,852	29,573	4,279	12.64	1.38	1.61
1995...	431	106	438	115	64	34,389	30,005	4,385	12.75	1.38	1.61
1996...	435	116	445	117	67	34,940	30,440	4,500	12.88	1.38	1.61
1997...	461	121	452	120	79	35,523	30,901	4,622	13.01	1.38	1.61
1998...	479	126	459	123	89	36,127	31,380	4,747	13.14	1.37	1.61
1999...	496	130	466	126	93	36,753	31,876	4,877	13.27	1.37	1.61
2000...	511	134	473	130	100	37,399	32,387	5,011	13.40	1.37	1.61
2001...	533	135	481	134	113	38,067	32,920	5,147	13.52	1.37	1.62
2002...	534	137	489	138	113	38,738	33,454	5,284	13.64	1.37	1.62
2003...	535	139	496	142	114	39,412	33,989	5,423	13.76	1.37	1.62
2004...	536	141	504	146	114	40,090	34,525	5,564	13.88	1.37	1.62
2005...	537	143	512	150	114	40,771	35,063	5,708	14.00	1.37	1.63
2006...	579	143	520	154	115	41,492	35,642	5,850	14.10	1.37	1.63
2007...	580	144	529	158	115	42,217	36,222	5,995	14.20	1.37	1.63
2008...	581	146	537	162	116	42,944	36,803	6,141	14.30	1.37	1.63
2009...	582	148	546	166	116	43,674	37,385	6,289	14.40	1.37	1.63
2010...	583	150	555	170	116	44,406	37,967	6,439	14.50	1.37	1.63
2011...	569	139	563	174	104	45,114	38,536	6,578	14.58	1.38	1.63
2012...	569	140	572	177	105	45,823	39,105	6,718	14.66	1.38	1.63
2013...	570	141	580	181	105	46,534	39,675	6,859	14.74	1.38	1.64
2014...	570	143	589	184	105	47,247	40,245	7,002	14.82	1.38	1.64
2015...	571	144	597	187	105	47,963	40,816	7,146	14.90	1.38	1.64
2016...	582	136	606	191	104	48,681	41,398	7,283	14.96	1.38	1.64
2017...	583	137	615	194	104	49,401	41,981	7,420	15.02	1.38	1.64
2018...	584	139	623	197	104	50,123	42,564	7,559	15.08	1.38	1.64
2019...	585	140	632	200	105	50,847	43,149	7,698	15.14	1.38	1.64
2020...	586	141	641	203	105	51,574	43,735	7,839	15.20	1.38	1.64

TABLE 19.—*Series 1 projections of housing demand in the West, by components, 1971–2020*

Year	Household formation	Vacancy change	Replacements			Housing stock			Vacancy rate	Replacement rate	
			Conventional	Mobile	Net mobile additions	Total	Occupied	Vacant		Conventional units	All units
Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Percent	Percent	Percent	Percent
1971...	282	105	119	18	53	12,451	11,405	1,046	8.40	.98	1.10
1972...	309	84	124	20	57	12,845	11,714	1,130	8.80	1.00	1.12
1973...	314	88	129	22	56	13,247	12,028	1,219	9.20	1.01	1.14
1974...	317	77	135	24	58	13,641	12,345	1,296	9.50	1.02	1.17
1975...	320	65	140	27	60	14,026	12,666	1,361	9.70	1.04	1.19
1976...	303	61	145	29	56	14,391	12,969	1,422	9.88	1.05	1.21
1977...	317	64	151	31	51	14,772	13,286	1,486	10.06	1.06	1.23
1978...	322	66	156	33	51	15,161	13,608	1,552	10.24	1.08	1.24
1979...	325	68	161	35	53	15,554	13,933	1,621	10.42	1.09	1.26
1980...	327	70	167	37	54	15,952	14,261	1,691	10.60	1.10	1.28
1981...	337	55	171	39	55	16,343	14,598	1,745	10.68	1.10	1.29
1982...	339	56	176	41	46	16,738	14,937	1,801	10.76	1.11	1.29
1983...	335	56	180	43	46	17,128	15,272	1,857	10.84	1.11	1.30
1984...	332	56	184	44	44	17,516	15,604	1,913	10.92	1.11	1.31
1985...	322	56	189	46	41	17,894	15,926	1,968	11.00	1.11	1.31
1986...	318	56	192	47	38	18,268	16,244	2,024	11.08	1.12	1.31
1987...	309	55	196	49	34	18,632	16,553	2,079	11.16	1.12	1.31
1988...	301	55	200	50	30	18,988	16,854	2,134	11.24	1.12	1.32
1989...	290	54	204	51	27	19,332	17,144	2,188	11.32	1.12	1.32
1990...	308	57	208	52	31	19,697	17,452	2,245	11.40	1.12	1.32
1991...	289	64	211	52	26	20,050	17,740	2,310	11.52	1.12	1.32
1992...	301	67	215	53	28	20,418	18,042	2,377	11.64	1.12	1.32
1993...	297	67	219	54	29	20,783	18,339	2,444	11.76	1.12	1.32
1994...	307	70	223	56	32	21,159	18,646	2,514	11.88	1.12	1.32
1995...	314	72	227	57	36	21,545	18,960	2,585	12.00	1.12	1.32
1996...	321	79	231	58	39	21,945	19,281	2,664	12.14	1.12	1.32
1997...	338	82	235	60	45	22,366	19,619	2,747	12.28	1.12	1.32
1998...	349	85	239	61	51	22,801	19,969	2,832	12.42	1.12	1.32
1999...	361	88	244	63	53	23,250	20,330	2,920	12.56	1.12	1.32
2000...	371	91	248	65	57	23,712	20,700	3,011	12.70	1.12	1.32
2001...	381	89	253	67	63	24,182	21,082	3,100	12.82	1.12	1.32
2002...	382	90	258	69	63	24,654	21,464	3,190	12.94	1.12	1.33
2003...	383	92	262	72	64	25,129	21,847	3,282	13.06	1.12	1.33
2004...	384	93	267	74	64	25,606	22,231	3,375	13.18	1.12	1.33
2005...	385	95	272	76	64	26,086	22,616	3,469	13.30	1.12	1.33
2006...	392	91	277	78	61	26,569	23,009	3,560	13.40	1.12	1.33
2007...	393	92	281	80	61	27,054	23,402	3,652	13.50	1.12	1.34
2008...	394	93	286	82	61	27,541	23,796	3,746	13.60	1.12	1.34
2009...	395	95	291	84	61	28,030	24,190	3,840	13.70	1.12	1.34
2010...	395	96	296	86	62	28,521	24,585	3,936	13.80	1.12	1.34
2011...	404	92	301	88	58	29,018	24,990	4,028	13.88	1.12	1.34
2012...	405	93	306	90	58	29,515	25,395	4,120	13.96	1.12	1.34
2013...	406	94	311	92	58	30,015	25,801	4,214	14.04	1.12	1.34
2014...	406	95	316	94	58	30,516	26,207	4,309	14.12	1.12	1.34
2015...	407	96	321	96	59	31,018	26,614	4,405	14.20	1.12	1.34
2016...	390	87	326	97	55	31,495	27,004	4,491	14.26	1.12	1.35
2017...	391	87	331	99	55	31,973	27,395	4,579	14.32	1.12	1.35
2018...	391	88	336	101	55	32,453	27,786	4,667	14.38	1.12	1.35
2019...	392	89	341	102	55	32,934	28,178	4,756	14.44	1.12	1.35
2020...	393	90	346	104	55	33,416	28,571	4,845	14.50	1.12	1.35

TABLE 20.—Series 2 projections of housing demand in the Northeast, by components, 1971–2020

Year	Household formation	Vacancy change	Replacements			Net mobile additions	Housing stock			Replacement rate	
			Conventional	Mobile	Total		Occupied	Vacant	Conventional units	All units	
	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Percent	Percent	Percent
1971--	194	85	89	18	27	17,283	15,719	1,564	9.05	.53	.62
1972--	231	71	93	20	31	17,585	15,950	1,635	9.30	.54	.64
1973--	236	74	97	22	31	17,895	16,186	1,709	9.55	.56	.66
1974--	238	55	102	23	32	18,188	16,424	1,764	9.70	.57	.69
1975--	241	46	106	25	33	18,475	16,664	1,811	9.80	.59	.71
1976--	245	43	109	27	33	18,763	16,909	1,854	9.88	.60	.73
1977--	262	46	113	29	31	19,070	17,171	1,899	9.96	.61	.74
1978--	268	47	116	30	31	19,385	17,439	1,946	10.04	.62	.76
1979--	271	48	120	32	32	19,703	17,709	1,994	10.12	.63	.77
1980--	273	49	124	34	33	20,025	17,982	2,043	10.20	.64	.78
1981--	263	43	126	35	32	20,331	18,245	2,086	10.26	.64	.79
1982--	266	44	128	36	26	20,641	18,511	2,130	10.32	.64	.80
1983--	260	44	130	38	26	20,945	18,771	2,174	10.38	.65	.80
1984--	255	44	132	39	25	21,244	19,026	2,218	10.44	.65	.81
1985--	242	43	135	40	22	21,529	19,269	2,261	10.50	.65	.81
1986--	222	41	136	41	19	21,792	19,491	2,301	10.56	.65	.81
1987--	209	39	138	41	16	22,041	19,700	2,341	10.62	.65	.81
1988--	198	39	139	42	14	22,277	19,898	2,379	10.68	.65	.81
1989--	184	37	141	42	12	22,499	20,082	2,416	10.74	.65	.82
1990--	193	38	142	43	13	22,730	20,275	2,455	10.80	.65	.82
1991--	150	44	144	43	8	22,924	20,425	2,499	10.90	.65	.82
1992--	160	46	145	43	9	23,130	20,585	2,544	11.00	.65	.81
1993--	152	45	146	44	9	23,326	20,737	2,589	11.10	.65	.81
1994--	157	46	148	44	10	23,530	20,894	2,635	11.20	.65	.81
1995--	154	46	149	44	10	23,729	21,048	2,681	11.30	.65	.81
1996--	141	45	150	45	10	23,915	21,189	2,726	11.40	.65	.81
1997--	154	47	151	45	12	24,116	21,342	2,773	11.50	.65	.81
1998--	161	48	152	46	15	24,324	21,503	2,822	11.60	.65	.81
1999--	168	50	154	46	15	24,542	21,671	2,871	11.70	.65	.81
2000--	173	51	155	47	17	24,766	21,844	2,922	11.80	.65	.82
2001--	204	50	156	48	24	25,019	22,047	2,972	11.88	.65	.82
2002--	204	50	158	49	24	25,274	22,251	3,023	11.96	.65	.82
2003--	204	51	159	50	24	25,529	22,455	3,074	12.04	.65	.82
2004--	205	51	161	51	24	25,785	22,660	3,125	12.12	.65	.82
2005--	205	52	162	52	24	26,042	22,865	3,177	12.20	.65	.82
2006--	240	57	164	53	28	26,340	23,105	3,235	12.28	.65	.82
2007--	240	58	166	54	28	26,638	23,345	3,292	12.36	.66	.83
2008--	241	59	169	55	28	26,937	23,586	3,351	12.44	.66	.83
2009--	241	59	171	56	28	27,237	23,827	3,410	12.52	.66	.83
2010--	241	60	173	57	28	27,538	24,068	3,470	12.60	.66	.84
2011--	236	53	175	58	26	27,826	24,304	3,523	12.66	.66	.84
2012--	236	53	177	59	26	28,116	24,539	3,576	12.72	.66	.84
2013--	236	54	179	60	26	28,406	24,775	3,630	12.78	.66	.84
2014--	236	54	180	61	26	28,696	25,011	3,685	12.84	.66	.84
2015--	236	55	182	62	26	28,986	25,247	3,739	12.90	.66	.84
2016--	238	49	184	62	24	29,273	25,485	3,788	12.94	.66	.84
2017--	238	49	186	63	24	29,559	25,722	3,837	12.98	.66	.84
2018--	238	49	187	64	24	29,846	25,960	3,886	13.02	.66	.84
2019--	238	49	189	65	24	30,134	26,198	3,935	13.06	.66	.84
2020--	238	50	191	65	24	30,421	26,436	3,985	13.10	.66	.84

TABLE 21.—Series 2 projections of housing demand in the North Central region, by components, 1971–2020

Year	Household formation	Vacancy change	Replacements		Net mobile additions	Housing stock			Vacancy rate	Replacement rate	
			Conventional	Mobile		Total	Occupied	Vacant		Conventional units	All units
Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Percent	Percent	Percent
1971	241	97	170	37	60	19,578	17,885	1,694	8.65	.90	1.06
1972	282	92	176	41	70	19,953	18,167	1,786	8.95	.92	1.09
1973	289	73	183	45	68	20,315	18,456	1,859	9.15	.94	1.12
1974	291	63	189	49	71	20,669	18,747	1,922	9.30	.96	1.15
1975	294	53	196	52	73	21,017	19,041	1,976	9.40	.98	1.18
1976	301	45	201	56	74	21,363	19,342	2,021	9.46	.99	1.20
1977	321	48	205	60	69	21,732	19,663	2,069	9.52	1.00	1.22
1978	328	49	210	63	69	22,109	19,991	2,118	9.58	1.01	1.24
1979	331	50	216	67	72	22,489	20,321	2,168	9.64	1.02	1.25
1980	334	51	221	70	73	22,874	20,655	2,219	9.70	1.03	1.27
1981	326	50	224	74	71	23,250	20,981	2,269	9.76	1.03	1.28
1982	329	51	228	76	59	23,630	21,310	2,320	9.82	1.04	1.29
1983	322	51	232	79	58	24,003	21,632	2,372	9.88	1.04	1.30
1984	317	51	236	82	56	24,372	21,949	2,423	9.94	1.04	1.30
1985	302	50	239	84	51	24,724	22,251	2,472	10.00	1.04	1.31
1986	282	48	243	86	44	25,054	22,533	2,520	10.06	1.04	1.31
1987	267	47	246	87	38	25,368	22,801	2,567	10.12	1.05	1.31
1988	255	46	249	89	33	25,668	23,055	2,613	10.18	1.05	1.31
1989	239	44	252	90	28	25,952	23,294	2,657	10.24	1.05	1.31
1990	249	46	254	91	30	26,246	23,543	2,703	10.30	1.05	1.31
1991	202	53	257	91	20	26,500	23,744	2,756	10.40	1.05	1.31
1992	214	55	260	92	22	26,769	23,958	2,811	10.50	1.05	1.31
1993	204	54	262	92	21	27,027	24,162	2,865	10.60	1.05	1.31
1994	210	55	265	93	23	27,293	24,372	2,920	10.70	1.05	1.31
1995	206	56	267	94	25	27,554	24,579	2,976	10.80	1.05	1.31
1996	194	55	270	95	25	27,803	24,773	3,031	10.90	1.05	1.31
1997	209	57	272	96	31	28,070	24,982	3,088	11.00	1.05	1.31
1998	217	59	274	97	36	28,346	25,199	3,146	11.10	1.05	1.31
1999	226	60	277	99	37	28,632	25,425	3,207	11.20	1.05	1.31
2000	232	62	279	100	42	28,925	25,657	3,269	11.30	1.05	1.31
2001	269	61	282	103	57	29,255	25,925	3,329	11.38	1.05	1.31
2002	269	61	285	105	57	29,585	26,194	3,390	11.46	1.05	1.32
2003	269	62	287	107	57	29,916	26,464	3,452	11.54	1.05	1.32
2004	270	63	290	109	57	30,249	26,734	3,515	11.62	1.05	1.32
2005	270	63	293	111	57	30,582	27,004	3,578	11.70	1.05	1.32
2006	290	66	297	114	62	30,938	27,294	3,645	11.78	1.05	1.33
2007	290	67	300	116	62	31,295	27,584	3,712	11.86	1.05	1.33
2008	290	68	304	118	62	31,653	27,874	3,779	11.94	1.05	1.33
2009	290	68	308	121	62	32,012	28,164	3,848	12.02	1.05	1.34
2010	291	69	311	123	62	32,372	28,455	3,917	12.10	1.06	1.34
2011	309	65	314	125	63	32,746	28,764	3,982	12.16	1.06	1.34
2012	309	65	318	127	63	33,120	29,073	4,047	12.22	1.06	1.34
2013	309	66	321	129	63	33,495	29,382	4,113	12.28	1.06	1.34
2014	309	66	324	131	63	33,871	29,691	4,180	12.34	1.06	1.34
2015	310	67	328	133	63	34,248	30,001	4,247	12.40	1.06	1.35
2016	286	56	331	135	53	34,590	30,287	4,303	12.44	1.06	1.35
2017	286	57	334	136	54	34,932	30,573	4,360	12.48	1.06	1.35
2018	286	57	337	138	54	35,275	30,859	4,416	12.52	1.06	1.35
2019	286	57	340	140	54	35,619	31,145	4,474	12.56	1.06	1.35
2020	286	58	343	141	54	35,963	31,432	4,531	12.60	1.06	1.35

TABLE 22.—Series 2 projections of housing demand in the South, by components, 1971–2020

Year	Household formation	Vacancy change	Replacements			Housing stock			Vacancy rate	Replacement rate	
			Conventional	Mobile	Net mobile additions	Total	Occupied	Vacant		Conventional units	All units
Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Percent	Percent	Percent	
1971--	359	145	270	38	86	21,484	19,325	2,159	10.05	1.30	1.43
1972--	404	119	276	43	95	22,007	19,729	2,278	10.35	1.30	1.45
1973--	412	98	283	47	93	22,516	20,141	2,375	10.55	1.31	1.46
1974--	415	100	289	51	97	23,031	20,555	2,476	10.75	1.31	1.48
1975--	419	90	296	55	99	23,540	20,974	2,566	10.90	1.32	1.49
1976--	426	68	301	60	101	24,035	21,401	2,634	10.96	1.32	1.50
1977--	449	72	307	64	92	24,556	21,849	2,706	11.02	1.32	1.51
1978--	457	73	313	68	92	25,086	22,306	2,780	11.08	1.32	1.52
1979--	460	75	319	72	96	25,621	22,767	2,854	11.14	1.32	1.52
1980--	464	76	325	76	97	26,161	23,231	2,930	11.20	1.32	1.53
1981--	471	77	331	80	98	26,710	23,702	3,008	11.26	1.32	1.54
1982--	475	79	337	83	82	27,263	24,177	3,086	11.32	1.32	1.54
1983--	468	79	343	86	81	27,810	24,645	3,165	11.38	1.32	1.55
1984--	463	79	350	89	78	28,351	25,108	3,243	11.44	1.32	1.55
1985--	446	77	356	92	72	28,875	25,554	3,321	11.50	1.32	1.55
1986--	436	77	362	95	65	29,388	25,990	3,397	11.56	1.32	1.56
1987--	421	75	369	97	57	29,884	26,411	3,472	11.62	1.33	1.56
1988--	407	74	375	99	50	30,365	26,818	3,547	11.68	1.33	1.56
1989--	389	72	381	100	44	30,826	27,207	3,619	11.74	1.33	1.56
1990--	401	75	386	102	47	31,302	27,608	3,694	11.80	1.33	1.56
1991--	357	80	392	103	33	31,739	27,966	3,774	11.89	1.33	1.56
1992--	372	83	398	104	37	32,195	28,338	3,857	11.98	1.33	1.56
1993--	361	83	403	105	36	32,638	28,699	3,939	12.07	1.33	1.56
1994--	369	85	409	106	40	33,092	29,068	4,024	12.16	1.33	1.56
1995--	365	85	414	108	42	33,542	29,433	4,109	12.25	1.33	1.56
1996--	362	85	420	109	44	33,989	29,795	4,194	12.34	1.33	1.56
1997--	381	89	425	111	53	34,459	30,176	4,283	12.43	1.33	1.56
1998--	390	91	431	113	61	34,941	30,566	4,375	12.52	1.33	1.56
1999--	401	94	437	115	64	35,435	30,967	4,468	12.61	1.33	1.56
2000--	408	96	442	118	72	35,940	31,376	4,564	12.70	1.33	1.56
2001--	421	95	448	121	85	36,456	31,797	4,659	12.78	1.33	1.56
2002--	422	96	454	124	86	36,973	32,219	4,755	12.86	1.33	1.56
2003--	423	97	460	126	86	37,493	32,641	4,852	12.94	1.33	1.56
2004--	423	98	466	129	86	38,014	33,064	4,949	13.02	1.33	1.57
2005--	424	99	472	132	86	38,537	33,488	5,048	13.10	1.33	1.57
2006--	459	105	478	136	94	39,100	33,947	5,153	13.18	1.33	1.57
2007--	459	106	485	139	94	39,666	34,406	5,260	13.26	1.33	1.57
2008--	460	107	492	142	94	40,233	34,866	5,367	13.34	1.34	1.58
2009--	460	109	500	145	95	40,801	35,326	5,476	13.42	1.34	1.58
2010--	461	110	507	148	95	41,372	35,787	5,585	13.50	1.34	1.58
2011--	441	98	514	151	86	41,911	36,228	5,683	13.56	1.34	1.59
2012--	442	99	520	154	86	42,452	36,670	5,782	13.62	1.34	1.59
2013--	442	100	526	156	86	42,994	37,112	5,882	13.68	1.34	1.59
2014--	442	100	532	159	86	43,536	37,555	5,982	13.74	1.34	1.59
2015--	443	101	538	162	86	44,080	37,997	6,083	13.80	1.34	1.59
2016--	418	88	545	164	75	44,586	38,415	6,171	13.84	1.34	1.59
2017--	418	88	551	166	75	45,092	38,834	6,259	13.88	1.34	1.59
2018--	419	89	557	168	75	45,600	39,252	6,347	13.92	1.34	1.59
2019--	419	89	563	170	75	46,108	39,671	6,437	13.96	1.34	1.59
2020--	419	90	568	172	75	46,617	40,090	6,526	14.00	1.34	1.59

TABLE 23.—Series 2 projections of housing demand in the West, by components, 1971–2020

Year	Household formation	Vacancy change	Replacements		Net mobile additions	Housing stock			Vacancy rate	Replacement rate	
			Conventional	Mobile		Total	Occupied	Vacant		Conventional units	All units
Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Percent	Percent	Percent	Percent
1971--	273	90	117	18	51	12,428	11,396	1,031	8.30	.97	1.08
1972--	300	83	120	20	55	12,810	11,696	1,114	8.70	.97	1.09
1973--	304	72	124	22	54	13,187	12,000	1,187	9.00	.97	1.10
1974--	306	75	127	24	56	13,568	12,306	1,262	9.30	.97	1.11
1975--	309	78	130	26	57	13,955	12,615	1,340	9.60	.97	1.12
1976--	293	56	135	28	54	14,304	12,908	1,396	9.76	.98	1.14
1977--	306	59	140	30	49	14,669	13,214	1,455	9.92	.99	1.16
1978--	311	61	144	32	49	15,041	13,525	1,516	10.08	1.00	1.17
1979--	314	63	149	34	51	15,417	13,839	1,579	10.24	1.01	1.19
1980--	316	64	154	36	52	15,797	14,154	1,643	10.40	1.02	1.20
1981--	326	49	158	38	53	16,172	14,481	1,692	10.46	1.03	1.21
1982--	329	49	162	40	44	16,550	14,809	1,741	10.52	1.03	1.22
1983--	325	49	166	41	44	16,924	15,134	1,791	10.58	1.03	1.22
1984--	321	50	169	43	43	17,295	15,455	1,840	10.64	1.03	1.23
1985--	311	49	173	45	39	17,655	15,766	1,889	10.70	1.04	1.23
1986--	310	49	177	46	36	18,015	16,077	1,938	10.76	1.04	1.24
1987--	301	49	180	47	32	18,365	16,378	1,987	10.82	1.04	1.24
1988--	293	48	184	48	28	18,706	16,671	2,035	10.88	1.04	1.24
1989--	282	47	187	49	25	19,035	16,952	2,082	10.94	1.04	1.24
1990--	289	49	190	50	26	19,373	17,242	2,131	11.00	1.04	1.24
1991--	266	55	194	50	19	19,694	17,508	2,186	11.10	1.04	1.24
1992--	276	57	197	51	21	20,027	17,784	2,243	11.20	1.04	1.24
1993--	269	57	200	52	21	20,353	18,053	2,300	11.30	1.04	1.24
1994--	274	58	203	53	23	20,685	18,327	2,358	11.40	1.04	1.24
1995--	272	59	207	53	25	21,015	18,599	2,417	11.50	1.04	1.24
1996--	274	60	210	54	26	21,349	18,873	2,477	11.60	1.04	1.24
1997--	286	62	213	55	31	21,697	19,159	2,539	11.70	1.04	1.24
1998--	292	64	217	56	36	22,053	19,451	2,602	11.80	1.04	1.24
1999--	299	65	220	57	37	22,418	19,750	2,668	11.90	1.04	1.24
2000--	304	67	223	59	42	22,788	20,054	2,735	12.00	1.04	1.24
2001--	308	63	227	60	49	23,160	20,362	2,798	12.08	1.04	1.24
2002--	309	64	230	62	49	23,533	20,671	2,862	12.16	1.04	1.24
2003--	309	65	234	64	49	23,907	20,980	2,926	12.24	1.04	1.25
2004--	310	65	237	65	49	24,282	21,290	2,992	12.32	1.04	1.25
2005--	310	66	241	67	49	24,658	21,601	3,058	12.40	1.04	1.25
2006--	314	67	245	68	50	25,039	21,914	3,125	12.48	1.04	1.25
2007--	314	68	249	70	51	25,421	22,229	3,193	12.56	1.05	1.25
2008--	315	69	253	72	51	25,805	22,543	3,262	12.64	1.05	1.26
2009--	315	70	257	73	51	26,189	22,858	3,331	12.72	1.05	1.26
2010--	315	70	261	75	51	26,575	23,173	3,402	12.80	1.05	1.26
2011--	320	66	265	77	49	26,960	23,493	3,467	12.86	1.05	1.27
2012--	320	66	268	78	49	27,347	23,813	3,533	12.92	1.05	1.27
2013--	321	67	272	80	49	27,734	24,134	3,600	12.98	1.05	1.27
2014--	321	67	276	81	49	28,122	24,455	3,667	13.04	1.05	1.27
2015--	321	68	279	83	49	28,511	24,776	3,735	13.10	1.05	1.27
2016--	282	56	283	84	40	28,849	25,058	3,791	13.14	1.06	1.27
2017--	283	56	286	85	40	29,188	25,341	3,847	13.18	1.06	1.27
2018--	283	57	290	86	40	29,527	25,624	3,904	13.22	1.06	1.27
2019--	283	57	293	87	40	29,867	25,907	3,960	13.26	1.06	1.27
2020--	283	57	296	88	40	30,208	26,190	4,018	13.30	1.06	1.27

TABLE 24.—Series 3 projections of housing demand in the Northeast, by components, 1971–2020

Year	Household formation	Vacancy change	Replacements			Net mobile additions	Housing stock			Vacancy rate	Replacement rate	
			Conventional	Mobile	Total		Occupied	Vacant	Conventional units		All units	
	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Percent	Percent	Percent	Percent
1971--	176	73	89	18	24	17,254	15,701	1,553	9.00	.53	.62	
1972--	212	59	93	20	29	17,525	15,913	1,612	9.20	.54	.64	
1973--	217	61	97	21	28	17,803	16,130	1,674	9.40	.56	.66	
1974--	218	53	101	23	29	18,074	16,348	1,726	9.55	.58	.69	
1975--	220	54	105	25	30	18,348	16,568	1,780	9.70	.59	.71	
1976--	230	37	107	26	31	18,615	16,798	1,817	9.76	.59	.72	
1977--	247	39	108	28	29	18,902	17,046	1,856	9.82	.59	.72	
1978--	253	40	110	29	29	19,195	17,298	1,896	9.88	.59	.73	
1979--	255	41	111	31	30	19,490	17,553	1,937	9.94	.59	.73	
1980--	257	42	113	33	31	19,789	17,810	1,979	10.00	.59	.74	
1981--	249	37	114	34	30	20,074	18,058	2,015	10.04	.59	.74	
1982--	251	37	116	35	25	20,361	18,309	2,052	10.08	.59	.74	
1983--	245	37	118	36	24	20,643	18,554	2,089	10.12	.59	.75	
1984--	240	36	119	38	23	20,919	18,794	2,125	10.16	.59	.75	
1985--	227	35	121	39	21	21,181	19,020	2,160	10.20	.59	.75	
1986--	208	33	122	39	18	21,422	19,229	2,194	10.24	.59	.75	
1987--	196	32	123	40	15	21,650	19,425	2,226	10.28	.59	.75	
1988--	185	31	125	40	13	21,867	19,610	2,257	10.32	.59	.76	
1989--	171	30	126	41	11	22,067	19,781	2,286	10.36	.59	.76	
1990--	174	30	127	41	11	22,271	19,955	2,316	10.40	.59	.76	
1991--	131	30	128	41	6	22,432	20,086	2,346	10.46	.60	.76	
1992--	143	32	129	41	7	22,606	20,228	2,378	10.52	.60	.75	
1993--	132	31	130	42	6	22,769	20,360	2,409	10.58	.60	.75	
1994--	138	32	131	42	7	22,939	20,499	2,441	10.64	.60	.75	
1995--	128	31	132	42	7	23,098	20,626	2,471	10.70	.60	.75	
1996--	116	29	133	42	7	23,243	20,742	2,501	10.76	.60	.75	
1997--	127	31	134	42	9	23,401	20,869	2,532	10.82	.60	.75	
1998--	132	32	135	43	11	23,565	21,001	2,564	10.88	.60	.75	
1999--	137	33	136	43	11	23,735	21,138	2,597	10.94	.60	.75	
2000--	140	33	136	44	13	23,908	21,278	2,630	11.00	.60	.75	
2001--	155	35	137	44	17	24,099	21,434	2,665	11.06	.60	.75	
2002--	156	36	138	45	17	24,291	21,590	2,701	11.12	.60	.76	
2003--	156	36	139	46	17	24,483	21,746	2,737	11.18	.60	.76	
2004--	157	36	140	46	17	24,676	21,903	2,774	11.24	.60	.76	
2005--	157	37	141	47	17	24,870	22,060	2,810	11.30	.60	.76	
2006--	182	34	143	48	20	25,087	22,242	2,845	11.34	.59	.76	
2007--	182	35	144	49	20	25,304	22,424	2,880	11.38	.59	.76	
2008--	183	35	145	49	21	25,522	22,607	2,915	11.42	.59	.76	
2009--	183	35	146	50	21	25,740	22,791	2,950	11.46	.59	.76	
2010--	184	36	147	51	21	25,960	22,974	2,985	11.50	.59	.76	
2011--	156	32	148	51	17	26,148	23,130	3,017	11.54	.60	.76	
2012--	156	32	149	52	17	26,336	23,286	3,050	11.58	.60	.76	
2013--	156	32	150	52	17	26,525	23,443	3,082	11.62	.60	.76	
2014--	157	33	151	53	17	26,715	23,600	3,115	11.66	.60	.77	
2015--	157	33	152	53	17	26,904	23,757	3,148	11.70	.60	.77	
2016--	150	26	154	54	16	27,081	23,907	3,174	11.72	.60	.77	
2017--	150	26	154	54	16	27,257	24,057	3,200	11.74	.60	.77	
2018--	151	26	155	55	16	27,434	24,208	3,226	11.76	.60	.77	
2019--	151	26	156	55	16	27,611	24,358	3,253	11.78	.60	.77	
2020--	151	26	157	55	16	27,788	24,509	3,279	11.80	.60	.77	

TABLE 25.—Series 3 projections of housing demand in the North Central region, by components, 1971–2020

Year	Household formation	Vacancy change	Replacements			Housing stock			Vacancy rate	Replacement rate	
			Conventional	Mobile	Net mobile additions	Total	Occupied	Vacant		Conventional units	All units
Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Percent	Percent	Percent
1971--	220	84	169	37	55	19,545	17,864	1,681	8.60	.90	1.06
1972--	261	68	175	41	65	19,874	18,125	1,749	8.80	.92	1.08
1973--	267	70	180	44	63	20,211	18,392	1,819	9.00	.93	1.11
1974--	268	60	186	48	66	20,540	18,660	1,879	9.15	.95	1.13
1975--	271	62	191	51	67	20,872	18,931	1,941	9.30	.96	1.16
1976--	284	38	194	55	70	21,195	19,215	1,980	9.34	.96	1.17
1977--	304	41	196	58	65	21,540	19,519	2,020	9.38	.96	1.18
1978--	310	42	199	61	65	21,892	19,830	2,062	9.42	.96	1.19
1979--	312	42	201	65	68	22,246	20,142	2,105	9.46	.96	1.20
1980--	315	43	204	68	69	22,604	20,457	2,147	9.50	.96	1.20
1981--	309	43	207	71	67	22,956	20,766	2,190	9.54	.96	1.21
1982--	311	43	210	74	56	23,310	21,077	2,233	9.58	.96	1.22
1983--	305	43	213	76	55	23,657	21,382	2,276	9.62	.96	1.22
1984--	299	42	215	79	53	23,999	21,681	2,318	9.66	.97	1.23
1985--	284	41	218	81	47	24,324	21,964	2,359	9.70	.97	1.23
1986--	266	39	221	83	41	24,629	22,230	2,399	9.74	.97	1.23
1987--	252	38	224	84	35	24,919	22,482	2,437	9.78	.97	1.24
1988--	240	37	226	85	30	25,196	22,722	2,474	9.82	.97	1.24
1989--	223	36	229	86	26	25,455	22,945	2,510	9.86	.97	1.24
1990--	226	36	231	87	25	25,717	23,171	2,546	9.90	.97	1.24
1991--	179	37	233	87	14	25,933	23,350	2,583	9.96	.97	1.24
1992--	193	39	235	88	17	26,164	23,543	2,622	10.02	.97	1.23
1993--	180	38	237	88	16	26,382	23,723	2,659	10.08	.97	1.23
1994--	188	39	239	88	18	26,609	23,911	2,698	10.14	.97	1.23
1995--	175	38	241	89	17	26,822	24,086	2,736	10.20	.97	1.23
1996--	164	37	243	89	17	27,023	24,250	2,773	10.26	.97	1.23
1997--	177	38	245	90	22	27,239	24,428	2,811	10.32	.97	1.23
1998--	183	39	247	91	27	27,461	24,611	2,850	10.38	.97	1.23
1999--	190	40	249	92	27	27,691	24,800	2,891	10.44	.97	1.23
2000--	192	41	251	93	32	27,925	24,993	2,932	10.50	.97	1.23
2001--	211	44	252	95	42	28,180	25,204	2,976	10.56	.97	1.23
2002--	212	44	255	96	42	28,435	25,416	3,020	10.62	.97	1.23
2003--	212	44	257	98	42	28,692	25,628	3,064	10.68	.97	1.24
2004--	213	45	259	99	42	28,950	25,840	3,109	10.74	.97	1.24
2005--	213	45	261	101	42	29,208	26,053	3,154	10.80	.97	1.24
2006--	221	40	263	103	45	29,469	26,274	3,194	10.84	.97	1.24
2007--	221	40	265	104	45	29,730	26,495	3,235	10.88	.97	1.24
2008--	222	41	267	106	45	29,992	26,717	3,275	10.92	.97	1.24
2009--	222	41	269	108	45	30,255	26,939	3,316	10.96	.97	1.24
2010--	223	41	271	109	45	30,519	27,162	3,357	11.00	.97	1.25
2011--	213	40	273	110	41	30,772	27,375	3,397	11.04	.97	1.25
2012--	213	40	275	112	41	31,026	27,588	3,438	11.08	.97	1.25
2013--	214	41	277	113	42	31,280	27,802	3,478	11.12	.97	1.25
2014--	214	41	279	114	42	31,535	28,016	3,519	11.16	.97	1.25
2015--	214	41	281	116	42	31,790	28,230	3,560	11.20	.97	1.25
2016--	182	30	284	116	34	32,002	28,411	3,591	11.22	.97	1.25
2017--	182	30	285	117	34	32,214	28,593	3,621	11.24	.97	1.25
2018--	182	30	287	118	34	32,427	28,775	3,651	11.26	.97	1.25
2019--	182	31	289	119	34	32,640	28,958	3,682	11.28	.97	1.25
2020--	183	31	290	120	34	32,853	29,141	3,712	11.30	.97	1.25

TABLE 26.—*Series 3 projections of housing demand in the South, by components, 1971–2020*

Year	Household formation	Vacancy change	Replacements			Net mobile additions	Housing stock			Vacancy rate	Replacement rate	
			Conventional	Mobile	Total		Occupied	Vacant	Conventional units		All units	
			Thousand units	Thousand units	Thousand units		Thousand units	Thousand units	Percent		Percent	
1971---	337	131	269	38	81	21,447	19,303	2,145	10.00	1.30	1.43	
1972---	381	103	274	42	90	21,932	19,684	2,248	10.25	1.30	1.44	
1973---	388	107	279	46	88	22,426	20,071	2,355	10.50	1.30	1.45	
1974---	389	84	285	50	92	22,899	20,461	2,439	10.65	1.30	1.46	
1975---	392	86	290	54	93	23,378	20,853	2,525	10.80	1.30	1.47	
1976---	408	60	295	58	97	23,845	21,261	2,585	10.84	1.30	1.48	
1977---	430	63	300	62	88	24,338	21,690	2,648	10.88	1.30	1.49	
1978---	436	64	306	66	88	24,839	22,127	2,712	10.92	1.30	1.49	
1979---	439	65	311	69	92	25,344	22,566	2,778	10.96	1.30	1.50	
1980---	442	66	317	73	92	25,852	23,008	2,844	11.00	1.30	1.51	
1981---	451	68	322	77	94	26,371	23,459	2,911	11.04	1.30	1.52	
1982---	454	68	328	80	78	26,893	23,913	2,980	11.08	1.30	1.52	
1983---	447	68	334	83	77	27,408	24,360	3,048	11.12	1.30	1.52	
1984---	441	68	340	86	74	27,917	24,801	3,115	11.16	1.30	1.53	
1985---	423	66	346	89	68	28,406	25,224	3,181	11.20	1.31	1.53	
1986---	417	66	352	91	61	28,888	25,641	3,247	11.24	1.31	1.53	
1987---	401	64	358	93	54	29,353	26,042	3,311	11.28	1.31	1.54	
1988---	388	63	363	95	46	29,804	26,430	3,374	11.32	1.31	1.54	
1989---	369	61	369	96	40	30,234	26,799	3,435	11.36	1.31	1.54	
1990---	373	62	374	98	40	30,668	27,172	3,496	11.40	1.31	1.54	
1991---	329	60	379	99	25	31,057	27,501	3,556	11.45	1.31	1.54	
1992---	345	62	384	99	29	31,465	27,846	3,618	11.50	1.31	1.54	
1993---	331	61	389	100	27	31,857	28,178	3,679	11.55	1.31	1.54	
1994---	340	63	394	101	31	32,260	28,518	3,742	11.60	1.31	1.53	
1995---	326	61	399	102	31	32,647	28,843	3,803	11.65	1.31	1.53	
1996---	323	61	404	103	32	33,032	29,167	3,865	11.70	1.31	1.53	
1997---	339	64	408	104	41	33,435	29,506	3,929	11.75	1.31	1.53	
1998---	346	65	413	106	48	33,846	29,852	3,994	11.80	1.31	1.53	
1999---	354	67	418	107	49	34,267	30,206	4,061	11.85	1.31	1.53	
2000---	357	68	423	109	57	34,692	30,563	4,128	11.90	1.31	1.53	
2001---	349	71	428	111	66	35,111	30,912	4,199	11.96	1.31	1.53	
2002---	349	72	432	114	66	35,532	31,261	4,271	12.02	1.31	1.54	
2003---	349	72	437	116	66	35,953	31,610	4,343	12.08	1.31	1.54	
2004---	350	73	442	118	66	36,376	31,960	4,416	12.14	1.31	1.54	
2005---	350	73	447	120	67	36,799	32,309	4,489	12.20	1.31	1.54	
2006---	369	68	451	122	72	37,237	32,679	4,558	12.24	1.31	1.54	
2007---	370	69	456	125	72	37,675	33,049	4,627	12.28	1.31	1.54	
2008---	370	69	461	127	72	38,115	33,419	4,696	12.32	1.31	1.54	
2009---	371	70	466	129	73	38,555	33,790	4,765	12.36	1.31	1.54	
2010---	371	70	471	132	73	38,996	34,161	4,836	12.40	1.31	1.55	
2011---	318	63	476	133	59	39,378	34,479	4,899	12.44	1.32	1.55	
2012---	318	63	481	135	59	39,759	34,797	4,962	12.48	1.32	1.55	
2013---	319	64	485	137	59	40,142	35,116	5,026	12.52	1.32	1.55	
2014---	319	64	489	139	59	40,525	35,435	5,090	12.56	1.32	1.55	
2015---	319	65	493	140	59	40,908	35,754	5,154	12.60	1.32	1.55	
2016---	283	50	498	142	51	41,241	36,037	5,205	12.62	1.32	1.55	
2017---	283	50	502	143	51	41,574	36,319	5,255	12.64	1.32	1.55	
2018---	283	51	505	144	51	41,908	36,602	5,306	12.66	1.32	1.55	
2019---	283	51	509	145	51	42,241	36,885	5,356	12.68	1.32	1.55	
2020---	283	51	513	147	51	42,575	37,168	5,407	12.70	1.32	1.55	

TABLE 27.—Series 3 projections of housing demand in the West, by components, 1971–2020

Year	Household formation	Vacancy change	Replacements			Housing stock			Vacancy rate	Replacement rate	
			Conventional	Mobile	Net mobile additions	Total	Occupied	Vacant		Conventional units	All units
Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Percent	Percent	Percent	Percent
1971	260	83	117	18	49	12,406	11,383	1,024	8.25	.97	1.09
1972	286	74	120	20	53	12,766	11,669	1,098	8.60	.97	1.09
1973	290	78	123	21	52	13,134	11,958	1,175	8.95	.97	1.10
1974	291	73	127	23	54	13,498	12,249	1,249	9.25	.97	1.11
1975	293	68	130	25	55	13,859	12,542	1,317	9.50	.97	1.12
1976	281	51	133	27	52	14,191	12,823	1,368	9.64	.98	1.13
1977	294	54	136	29	47	14,540	13,118	1,422	9.78	.98	1.14
1978	299	55	139	31	47	14,894	13,416	1,477	9.92	.98	1.14
1979	300	57	142	33	49	15,251	13,717	1,534	10.06	.98	1.15
1980	302	58	145	35	49	15,611	14,019	1,592	10.20	.98	1.15
1981	314	43	148	37	51	15,967	14,332	1,635	10.24	.98	1.16
1982	315	43	152	39	42	16,326	14,648	1,678	10.28	.98	1.16
1983	311	43	155	40	42	16,680	14,959	1,721	10.32	.98	1.17
1984	308	43	158	42	41	17,031	15,266	1,764	10.36	.98	1.17
1985	297	42	161	43	37	17,369	15,563	1,806	10.40	.98	1.18
1986	298	42	164	44	34	17,709	15,861	1,849	10.44	.98	1.18
1987	288	42	167	45	30	18,040	16,149	1,891	10.48	.98	1.18
1988	280	41	170	46	26	18,361	16,429	1,932	10.52	.98	1.18
1989	269	40	173	47	23	18,670	16,698	1,972	10.56	.98	1.18
1990	271	41	176	48	23	18,981	16,969	2,012	10.60	.98	1.18
1991	248	42	179	48	15	19,272	17,217	2,054	10.66	.96	1.18
1992	258	44	182	49	17	19,574	17,475	2,098	10.72	.98	1.18
1993	249	43	185	49	16	19,867	17,725	2,142	10.78	.98	1.18
1994	255	44	188	50	18	20,166	17,980	2,186	10.84	.98	1.18
1995	246	44	190	50	18	20,456	18,226	2,230	10.90	.99	1.18
1996	249	44	193	51	19	20,749	18,475	2,274	10.96	.99	1.18
1997	259	46	196	52	24	21,054	18,734	2,320	11.02	.98	1.18
1998	263	47	199	53	29	21,364	18,997	2,367	11.08	.98	1.18
1999	268	48	202	54	29	21,680	19,265	2,415	11.14	.98	1.18
2000	270	49	204	55	34	21,998	19,535	2,464	11.20	.98	1.18
2001	261	48	207	56	39	22,307	19,796	2,512	11.26	.99	1.18
2002	261	48	210	57	39	22,617	20,057	2,560	11.32	.99	1.18
2003	261	49	213	58	39	22,927	20,318	2,609	11.38	.99	1.18
2004	261	49	216	59	39	23,237	20,579	2,658	11.44	.99	1.18
2005	261	50	218	61	39	23,548	20,840	2,708	11.50	.99	1.18
2006	256	44	221	62	39	23,848	21,096	2,752	11.54	.99	1.19
2007	256	44	224	63	39	24,148	21,352	2,796	11.58	.99	1.19
2008	256	45	226	64	39	24,449	21,608	2,841	11.62	.99	1.19
2009	256	45	229	65	39	24,750	21,864	2,886	11.66	.99	1.19
2010	257	45	232	67	39	25,052	22,120	2,931	11.70	.99	1.19
2011	238	43	234	68	35	25,333	22,359	2,974	11.74	.99	1.19
2012	238	43	237	69	35	25,615	22,597	3,017	11.78	.99	1.19
2013	239	44	239	70	35	25,897	22,836	3,061	11.82	.99	1.19
2014	239	44	242	71	35	26,179	23,075	3,105	11.86	.99	1.19
2015	239	44	244	72	35	26,462	23,313	3,149	11.90	.99	1.19
2016	193	32	247	72	27	26,688	23,507	3,181	11.92	.99	1.20
2017	194	32	249	73	27	26,914	23,700	3,213	11.94	.99	1.20
2018	194	32	251	74	27	27,140	23,894	3,246	11.96	.99	1.20
2019	194	33	253	74	27	27,366	24,088	3,278	11.98	.99	1.20
2020	194	33	255	75	27	27,592	24,281	3,311	12.00	.99	1.20

TABLE 28.—*Series 1 projections of housing demand in the United States, by components, 1971–2020*

Year	Household formation	Vacancy change	Replacements		Net mobile additions	Housing stock			Vacancy rate	Replacement rate	
			Conventional	Mobile		Total	Occupied	Vacant		Conventional units	All units
	<i>Thousand units</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>							
1971...	1,119	508	651	112	235	70,916	64,376	6,540	9.22	.95	1.08
1972...	1,270	383	677	124	263	72,569	65,646	6,923	9.54	.97	1.10
1973...	1,296	330	704	137	259	74,194	66,942	7,252	9.77	.99	1.13
1974...	1,308	290	731	149	269	75,792	68,250	7,543	9.95	1.00	1.16
1975...	1,323	283	758	162	275	77,398	69,573	7,826	10.11	1.02	1.19
1976...	1,320	236	780	175	274	78,955	70,893	8,062	10.21	1.03	1.21
1977...	1,396	248	801	186	253	80,599	72,289	8,310	10.31	1.04	1.23
1978...	1,422	255	824	198	253	82,276	73,711	8,565	10.41	1.05	1.24
1979...	1,435	261	848	209	264	83,972	75,146	8,826	10.51	1.06	1.26
1980...	1,447	266	872	221	266	85,685	76,593	9,092	10.61	1.08	1.28
1981...	1,441	250	889	233	266	87,376	78,034	9,342	10.69	1.08	1.28
1982...	1,451	255	907	243	222	89,081	79,484	9,597	10.77	1.08	1.29
1983...	1,427	255	925	252	219	90,763	80,912	9,851	10.85	1.08	1.30
1984...	1,410	256	943	261	212	92,428	82,321	10,107	10.94	1.08	1.30
1985...	1,357	252	961	269	195	94,038	83,679	10,359	11.02	1.09	1.31
1986...	1,287	246	977	276	171	95,572	84,966	10,606	11.10	1.09	1.31
1987...	1,236	243	993	282	152	97,050	86,202	10,848	11.18	1.09	1.31
1988...	1,190	240	1,008	286	133	98,480	87,392	11,088	11.26	1.09	1.31
1989...	1,183	235	1,023	291	118	99,848	88,525	11,323	11.34	1.09	1.32
1990...	1,222	249	1,038	296	139	101,319	89,747	11,572	11.42	1.09	1.32
1991...	1,085	277	1,053	299	109	102,681	90,832	11,849	11.54	1.10	1.32
1992...	1,147	288	1,067	304	122	104,116	91,979	12,137	11.66	1.10	1.32
1993...	1,122	289	1,083	308	125	105,527	93,101	12,426	11.77	1.10	1.32
1994...	1,170	299	1,097	313	140	106,997	94,272	12,725	11.89	1.10	1.32
1995...	1,205	308	1,112	319	157	108,510	95,477	13,033	12.01	1.10	1.32
1996...	1,199	336	1,128	324	164	110,045	96,676	13,369	12.15	1.10	1.32
1997...	1,282	353	1,143	332	194	111,680	97,959	13,721	12.29	1.10	1.32
1998...	1,335	365	1,159	340	219	113,380	99,294	14,087	12.42	1.10	1.32
1999...	1,390	378	1,176	348	230	115,149	100,684	14,465	12.56	1.10	1.32
2000...	1,435	390	1,194	358	249	116,975	102,120	14,855	12.70	1.10	1.33
2001...	1,549	390	1,211	369	289	118,914	103,669	15,245	12.82	1.10	1.33
2002...	1,552	396	1,230	380	290	120,861	105,220	15,641	12.94	1.10	1.33
2003...	1,555	401	1,249	390	291	122,817	106,775	16,042	13.06	1.10	1.33
2004...	1,558	407	1,268	401	291	124,782	108,333	16,449	13.18	1.10	1.34
2005...	1,560	413	1,287	412	292	126,755	109,893	16,862	13.30	1.10	1.34
2006...	1,673	406	1,306	422	292	128,834	111,566	17,269	13.40	1.10	1.34
2007...	1,675	411	1,327	433	293	130,920	113,240	17,680	13.50	1.10	1.34
2008...	1,677	417	1,347	443	293	133,014	114,917	18,097	13.60	1.10	1.35
2009...	1,679	422	1,367	453	293	135,114	116,596	18,518	13.71	1.10	1.35
2010...	1,681	427	1,388	464	294	137,221	118,276	18,945	13.81	1.10	1.35
2011...	1,698	402	1,409	473	274	139,321	119,974	19,347	13.89	1.10	1.35
2012...	1,699	406	1,429	482	274	141,426	121,673	19,753	13.97	1.10	1.35
2013...	1,700	410	1,450	491	275	143,536	123,373	20,163	14.05	1.10	1.35
2014...	1,701	414	1,471	500	275	145,651	125,074	20,577	14.13	1.10	1.35
2015...	1,702	418	1,492	509	275	147,772	126,776	20,995	14.21	1.10	1.35
2016...	1,727	391	1,513	517	271	149,890	128,504	21,387	14.27	1.10	1.35
2017...	1,729	395	1,534	526	271	152,015	130,233	21,782	14.33	1.10	1.35
2018...	1,731	398	1,555	534	271	154,144	131,964	22,180	14.39	1.10	1.35
2019...	1,734	401	1,576	542	272	156,279	133,698	22,581	14.45	1.10	1.36
2020...	1,736	405	1,597	551	272	158,420	135,434	22,986	14.51	1.10	1.36

TABLE 29.—*Series 2 projections of housing demand in the United States, by components, 1971–2020*

Year	Household formation	Vacancy change	Replacements			Housing stock			Vacancy rate	Replacement rate	
			Conventional	Mobile	Net mobile additions	Total	Occupied	Vacant		Conventional units	All units
	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Percent	Percent	Percent
1971	1,067	417	646	111	224	70,773	64,325	6,448	9.11	.94	1.07
1972	1,217	365	666	123	252	72,355	65,542	6,813	9.42	.95	1.09
1973	1,241	317	687	135	247	73,912	66,782	7,130	9.65	.96	1.11
1974	1,250	294	707	147	256	75,456	68,032	7,424	9.84	.98	1.13
1975	1,262	267	728	159	262	76,986	69,294	7,692	9.99	.99	1.15
1976	1,264	213	746	171	262	78,464	70,559	7,905	10.07	1.00	1.17
1977	1,338	225	764	182	241	80,026	71,897	8,129	10.16	1.00	1.18
1978	1,364	231	784	193	241	81,621	73,261	8,360	10.24	1.01	1.20
1979	1,375	235	803	204	251	83,231	74,636	8,595	10.33	1.02	1.21
1980	1,386	239	823	215	253	84,857	76,022	8,834	10.41	1.02	1.22
1981	1,387	220	839	227	254	86,463	77,409	9,054	10.47	1.03	1.23
1982	1,398	224	855	236	211	88,085	78,807	9,278	10.53	1.03	1.24
1983	1,375	223	871	245	209	89,683	80,182	9,501	10.59	1.03	1.24
1984	1,357	223	887	253	202	91,263	81,539	9,724	10.66	1.03	1.25
1985	1,302	219	904	261	184	92,783	82,841	9,943	10.72	1.04	1.25
1986	1,250	215	918	267	164	94,248	84,091	10,157	10.78	1.04	1.26
1987	1,199	210	933	273	144	95,657	85,290	10,368	10.84	1.04	1.26
1988	1,153	207	947	277	125	97,016	86,442	10,574	10.90	1.04	1.26
1989	1,094	201	960	281	110	98,311	87,536	10,775	10.96	1.04	1.26
1990	1,132	208	973	285	116	99,650	88,668	10,983	11.02	1.04	1.26
1991	975	232	987	288	80	100,857	89,643	11,215	11.12	1.04	1.26
1992	1,022	240	999	290	89	102,120	90,665	11,455	11.22	1.04	1.26
1993	985	238	1,012	293	87	103,344	91,651	11,693	11.31	1.04	1.26
1994	1,011	244	1,024	296	96	104,599	92,662	11,938	11.41	1.04	1.26
1995	996	245	1,037	299	102	105,841	93,658	12,183	11.51	1.05	1.26
1996	971	245	1,050	303	104	107,057	94,629	12,428	11.61	1.05	1.26
1997	1,030	255	1,062	307	128	108,342	95,659	12,683	11.71	1.05	1.26
1998	1,060	262	1,074	312	148	109,664	96,719	12,945	11.80	1.05	1.26
1999	1,094	269	1,087	317	154	111,027	97,813	13,214	11.90	1.05	1.26
2000	1,117	276	1,100	324	173	112,420	98,930	13,490	12.00	1.05	1.27
2001	1,202	268	1,113	331	215	113,890	100,131	13,758	12.08	1.05	1.27
2002	1,204	271	1,127	339	215	115,365	101,335	14,030	12.16	1.05	1.27
2003	1,206	274	1,140	347	216	116,845	102,541	14,304	12.24	1.05	1.27
2004	1,208	277	1,154	355	216	118,329	103,748	14,581	12.32	1.05	1.28
2005	1,210	280	1,168	362	217	119,819	104,958	14,861	12.40	1.05	1.28
2006	1,302	296	1,184	371	235	121,417	106,260	15,157	12.48	1.05	1.28
2007	1,303	299	1,201	379	235	123,020	107,563	15,457	12.56	1.05	1.28
2008	1,305	302	1,218	387	236	124,628	108,868	15,759	12.64	1.05	1.29
2009	1,307	306	1,235	395	236	126,240	110,175	16,065	12.73	1.06	1.29
2010	1,308	309	1,253	403	236	127,857	111,483	16,374	12.81	1.06	1.30
2011	1,306	281	1,268	411	223	129,444	112,789	16,655	12.87	1.06	1.30
2012	1,307	284	1,283	418	223	131,034	114,096	16,939	12.93	1.06	1.30
2013	1,308	286	1,298	425	223	132,628	115,403	17,225	12.99	1.06	1.30
2014	1,309	288	1,313	432	223	134,225	116,712	17,513	13.05	1.06	1.30
2015	1,310	291	1,328	439	224	135,825	118,021	17,804	13.11	1.06	1.30
2016	1,224	248	1,343	445	192	137,297	119,245	18,052	13.15	1.06	1.30
2017	1,225	250	1,357	451	193	138,772	120,470	18,302	13.19	1.06	1.30
2018	1,225	251	1,371	456	193	140,249	121,695	18,553	13.23	1.06	1.30
2019	1,226	253	1,385	462	193	141,728	122,922	18,806	13.27	1.06	1.30
2020	1,227	254	1,399	467	193	143,209	124,149	19,061	13.31	1.06	1.30

TABLE 30.—*Series 3 projections of housing demand in the United States, by components, 1971–2020*

Year	Household formation	Vacancy change	Replacements			Housing stock			Va-cancy rate	Replacement rate	
			Conven-tional	Mobile	Net mobile additions	Total	Occupied	Vacant		Conven-tional units	All units
	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Percent	Percent	Percent
1971--	993	371	645	111	210	70,653	64,251	6,402	9.06	.94	1.07
1972--	1,140	305	662	122	237	72,098	65,390	6,707	9.30	.95	1.09
1973--	1,161	316	680	133	231	73,574	66,551	7,023	9.55	.96	1.10
1974--	1,167	270	698	144	240	75,011	67,718	7,293	9.72	.97	1.12
1975--	1,176	269	716	155	245	76,456	68,894	7,562	9.89	.98	1.14
1976--	1,203	187	728	167	251	77,847	70,097	7,749	9.95	.98	1.15
1977--	1,276	197	740	177	229	79,319	71,373	7,947	10.02	.98	1.16
1978--	1,298	202	753	188	229	80,819	72,671	8,149	10.08	.98	1.16
1979--	1,307	205	766	198	239	82,331	73,978	8,354	10.15	.98	1.17
1980--	1,316	209	779	209	241	83,856	75,293	8,562	10.21	.98	1.18
1981--	1,322	189	792	220	243	85,367	76,616	8,752	10.25	.98	1.19
1982--	1,331	192	806	228	200	86,891	77,947	8,944	10.29	.98	1.19
1983--	1,307	190	819	237	198	88,388	79,254	9,134	10.33	.98	1.19
1984--	1,288	190	833	244	191	89,865	80,542	9,324	10.38	.98	1.20
1985--	1,230	184	846	252	173	91,280	81,772	9,508	10.42	.98	1.20
1986--	1,189	181	859	258	154	92,649	82,961	9,688	10.46	.99	1.21
1987--	1,138	176	872	263	134	93,963	84,098	9,864	10.50	.99	1.21
1988--	1,093	172	884	267	115	95,228	85,192	10,036	10.54	.99	1.21
1989--	1,032	166	897	270	100	96,425	86,223	10,202	10.58	.99	1.21
1990--	1,044	168	908	274	99	97,638	87,267	10,370	10.62	.99	1.21
1991--	886	169	920	275	60	98,693	88,154	10,540	10.68	.99	1.21
1992--	939	177	931	277	69	99,809	89,093	10,717	10.74	.99	1.21
1993--	893	173	942	279	65	100,875	89,986	10,889	10.79	.99	1.21
1994--	922	178	952	281	75	101,974	90,907	11,067	10.85	.99	1.21
1995--	875	173	963	283	74	103,022	91,782	11,240	10.91	1.00	1.21
1996--	852	172	973	285	75	104,046	92,634	11,412	10.97	1.00	1.21
1997--	902	179	983	288	96	105,128	93,536	11,592	11.03	1.00	1.21
1998--	925	184	993	292	114	106,236	94,461	11,775	11.08	1.00	1.21
1999--	949	188	1,004	296	116	107,373	95,410	11,963	11.14	1.00	1.21
2000--	959	191	1,014	300	136	108,523	96,369	12,154	11.20	1.00	1.21
2001--	976	198	1,025	306	164	109,697	97,345	12,352	11.26	1.00	1.21
2002--	978	200	1,035	312	164	110,874	98,322	12,552	11.32	1.00	1.22
2003--	979	202	1,046	318	164	112,055	99,301	12,754	11.38	1.00	1.22
2004--	980	203	1,056	323	165	113,239	100,282	12,957	11.44	1.00	1.22
2005--	982	205	1,067	329	165	114,426	101,263	13,162	11.50	1.00	1.22
2006--	1,027	187	1,078	335	177	115,640	102,291	13,349	11.54	1.00	1.22
2007--	1,029	188	1,088	341	177	116,857	103,320	13,537	11.58	1.00	1.22
2008--	1,031	189	1,099	347	177	118,077	104,351	13,726	11.62	1.00	1.22
2009--	1,033	191	1,110	352	178	119,300	105,383	13,917	11.67	1.00	1.23
2010--	1,034	192	1,121	358	178	120,527	106,418	14,109	11.71	1.00	1.23
2011--	926	178	1,132	363	152	121,631	107,343	14,287	11.75	1.00	1.23
2012--	926	179	1,142	367	152	122,736	108,270	14,467	11.79	1.00	1.23
2013--	927	181	1,152	372	152	123,844	109,197	14,647	11.83	1.00	1.23
2014--	928	182	1,162	376	153	124,954	110,125	14,829	11.87	1.00	1.23
2015--	929	183	1,172	381	153	126,065	111,053	15,012	11.91	1.00	1.23
2016--	808	139	1,182	384	128	127,011	111,861	15,150	11.93	1.00	1.23
2017--	809	139	1,190	387	128	127,959	112,670	15,289	11.95	1.00	1.23
2018--	809	140	1,199	391	128	128,908	113,479	15,429	11.97	1.00	1.23
2019--	810	140	1,207	394	128	129,858	114,289	15,569	11.99	1.01	1.23
2020--	811	141	1,216	397	128	130,809	115,100	15,710	12.01	1.01	1.23

TABLE 31.—*Series 1 projections of housing demand in the United States, by type of unit, 1971–2020*

Year	Total all types	New Construction				
		Total	One-unit	Percent	Multiunit	Mobile homes
	Thousand units	Thousand units	Thousand units		Thousand units	Thousand units
1971	2,477	2,043	1,065	52.1	978	434
1972	2,551	2,066	1,111	53.8	955	484
1973	2,565	2,071	1,140	55.0	932	494
1974	2,583	2,060	1,112	54.0	949	523
1975	2,636	2,089	1,115	53.4	974	547
1976	2,623	2,062	1,108	53.8	953	561
1977	2,741	2,192	1,275	58.2	917	549
1978	2,812	2,248	1,317	58.6	931	564
1979	2,871	2,280	1,315	57.7	965	592
1980	2,928	2,318	1,335	57.6	984	610
1981	2,938	2,314	1,332	57.6	982	623
1982	2,971	2,390	1,492	62.4	898	580
1983	2,977	2,388	1,490	62.4	898	589
1984	2,987	2,396	1,507	62.9	889	591
1985	2,955	2,375	1,520	64.0	855	580
1986	2,898	2,339	1,541	65.9	798	559
1987	2,862	2,320	1,558	67.2	762	541
1988	2,829	2,306	1,576	68.4	730	524
1989	2,784	2,274	1,572	69.2	701	511
1990	2,913	2,369	1,602	67.6	767	544
1991	2,817	2,306	1,592	69.0	715	511
1992	2,913	2,380	1,605	67.4	775	533
1993	2,910	2,369	1,579	66.7	790	541
1994	2,993	2,427	1,591	65.6	836	566
1995	3,063	2,468	1,582	64.1	886	594
1996	3,110	2,500	1,580	63.2	920	610
1997	3,241	2,584	1,582	61.2	1,002	656
1998	3,339	2,641	1,566	59.3	1,075	699
1999	3,438	2,715	1,598	58.9	1,116	723
2000	3,529	2,771	1,601	57.8	1,171	758
2001	3,683	2,861	1,601	56.0	1,260	822
2002	3,725	2,888	1,613	55.9	1,274	837
2003	3,766	2,915	1,625	55.8	1,289	851
2004	3,807	2,942	1,637	55.7	1,304	866
2005	3,848	2,969	1,650	55.6	1,319	880
2006	3,986	3,093	1,791	57.9	1,302	893
2007	4,027	3,120	1,805	57.8	1,316	907
2008	4,067	3,147	1,818	57.8	1,329	920
2009	4,108	3,174	1,832	57.7	1,343	933
2010	4,148	3,202	1,845	57.6	1,356	947
2011	4,168	3,234	1,949	60.2	1,286	934
2012	4,205	3,260	1,962	60.2	1,297	945
2013	4,243	3,286	1,976	60.2	1,309	957
2014	4,280	3,311	1,990	60.1	1,321	968
2015	4,317	3,337	2,004	60.1	1,333	980
2016	4,346	3,361	2,023	60.2	1,338	985
2017	4,383	3,387	2,037	60.1	1,350	996
2018	4,420	3,413	2,051	60.1	1,362	1,007
2019	4,457	3,439	2,065	60.0	1,374	1,018
2020	4,493	3,465	2,079	60.0	1,386	1,029

TABLE 32.—*Series 2 projections of housing demand in the United States, by type of unit, 1971–2020*

Year	Total all types	New Construction				Mobile homes
		Total	One-unit	Percent	Multiunit	
	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units	Thousand units
1971	2,325	1,906	1,008	52.9	898	419
1972	2,464	1,996	1,081	54.2	914	469
1973	2,474	1,997	1,104	55.3	893	477
1974	2,499	1,995	1,082	54.2	913	504
1975	2,522	1,996	1,072	53.7	924	527
1976	2,504	1,962	1,059	54.0	903	542
1977	2,615	2,086	1,221	58.5	865	529
1978	2,679	2,137	1,260	59.0	877	542
1979	2,731	2,162	1,255	58.0	908	569
1980	2,781	2,195	1,271	57.9	924	586
1981	2,792	2,191	1,269	57.9	922	601
1982	2,824	2,266	1,425	62.9	841	558
1983	2,827	2,260	1,420	62.8	840	566
1984	2,834	2,266	1,435	63.3	830	568
1985	2,796	2,240	1,446	64.5	794	556
1986	2,758	2,219	1,473	66.4	746	539
1987	2,718	2,198	1,488	67.7	709	521
1988	2,684	2,181	1,504	69.0	677	503
1989	2,634	2,145	1,499	69.9	646	488
1990	2,698	2,196	1,526	69.5	670	501
1991	2,573	2,114	1,514	71.6	600	459
1992	2,647	2,173	1,527	70.3	646	474
1993	2,624	2,148	1,501	69.9	648	475
1994	2,674	2,184	1,512	69.2	672	490
1995	2,678	2,176	1,478	67.9	698	502
1996	2,670	2,161	1,454	67.3	707	509
1997	2,762	2,218	1,449	65.3	770	543
1998	2,823	2,249	1,425	63.4	823	575
1999	2,886	2,297	1,449	63.1	848	589
2000	2,940	2,319	1,418	61.1	902	621
2001	3,051	2,368	1,377	58.1	991	683
2002	3,079	2,386	1,385	58.0	1,001	693
2003	3,108	2,405	1,394	58.0	1,011	703
2004	3,136	2,423	1,402	57.9	1,021	713
2005	3,165	2,441	1,410	57.8	1,031	724
2006	3,304	2,547	1,477	58.0	1,070	757
2007	3,336	2,568	1,487	57.9	1,081	768
2008	3,368	2,590	1,498	57.8	1,092	778
2009	3,400	2,611	1,509	57.8	1,103	789
2010	3,433	2,633	1,519	57.7	1,114	799
2011	3,424	2,632	1,581	60.1	1,051	792
2012	3,451	2,650	1,591	60.0	1,060	801
2013	3,479	2,668	1,600	60.0	1,068	811
2014	3,506	2,686	1,609	59.9	1,077	820
2015	3,533	2,704	1,619	59.9	1,085	829
2016	3,419	2,623	1,610	61.4	1,013	797
2017	3,443	2,639	1,619	61.3	1,020	804
2018	3,466	2,655	1,628	61.3	1,027	811
2019	3,489	2,671	1,637	61.3	1,034	818
2020	3,512	2,687	1,646	61.2	1,042	825

TABLE 33.—Series 3 projections of housing demand in the United States, by type of unit, 1971–2020

Year	Total all types	New Construction				
		Total	One-unit	Multiunit	Mobile homes	
	Thousand units	Thousand units	Thousand units	Percent	Thousand units	Thousand units
1971	2,199	1,798	955	53.1	843	401
1972	2,318	1,870	1,020	54.5	850	449
1973	2,380	1,925	1,070	55.6	854	455
1974	2,375	1,895	1,032	54.5	863	480
1975	2,417	1,916	1,031	53.8	885	501
1976	2,390	1,868	1,010	54.1	857	522
1977	2,492	1,984	1,166	58.8	818	508
1978	2,545	2,024	1,198	59.2	825	521
1979	2,585	2,039	1,187	58.2	852	546
1980	2,625	2,062	1,199	58.1	864	562
1981	2,639	2,061	1,196	58.0	865	578
1982	2,664	2,129	1,345	63.2	784	536
1983	2,662	2,119	1,338	63.1	781	543
1984	2,663	2,119	1,349	63.7	770	544
1985	2,618	2,088	1,356	64.9	732	531
1986	2,589	2,075	1,388	66.9	687	514
1987	2,547	2,051	1,401	68.3	650	496
1988	2,512	2,034	1,416	69.6	618	478
1989	2,457	1,994	1,408	70.6	586	463
1990	2,487	2,022	1,432	70.8	590	466
1991	2,335	1,915	1,408	73.5	508	420
1992	2,410	1,977	1,426	72.1	551	433
1993	2,373	1,942	1,397	71.9	545	431
1994	2,421	1,977	1,406	71.1	570	445
1995	2,383	1,937	1,362	70.3	575	446
1996	2,372	1,922	1,340	69.7	582	450
1997	2,449	1,969	1,334	67.8	635	481
1998	2,495	1,988	1,310	65.9	678	507
1999	2,539	2,024	1,331	65.8	693	515
2000	2,573	2,028	1,287	63.5	741	545
2001	2,623	2,035	1,231	60.5	804	587
2002	2,644	2,049	1,238	60.4	811	595
2003	2,664	2,062	1,245	60.4	817	602
2004	2,685	2,076	1,251	60.3	824	610
2005	2,706	2,089	1,258	60.2	831	617
2006	2,754	2,115	1,277	60.4	838	639
2007	2,776	2,129	1,284	60.3	844	647
2008	2,797	2,142	1,291	60.3	851	655
2009	2,818	2,156	1,298	60.2	858	663
2010	2,840	2,169	1,305	60.1	865	670
2011	2,728	2,084	1,299	62.4	784	644
2012	2,745	2,095	1,306	62.3	790	650
2013	2,763	2,107	1,312	62.3	795	655
2014	2,780	2,119	1,319	62.2	800	661
2015	2,797	2,130	1,325	62.2	805	667
2016	2,640	2,000	1,255	62.7	745	640
2017	2,654	2,010	1,260	62.7	750	645
2018	2,668	2,019	1,265	62.7	754	649
2019	2,682	2,029	1,271	62.6	758	653
2020	2,696	2,039	1,276	62.6	762	657

TABLE 34.—Series 1 projections of housing demand in the Northeast, by type of unit, 1971–2020

Year	Total all types	New construction				Mobile homes	Relation of region to United States totals			
		New construction		Multiunit	Percent		Total units	New con- struction Percent	Population Percent	
		Total	One-unit							
	Thousand units	Thousand units	Thousand units	Percent	Thousand units	Thousand units	Percent	Percent	Percent	
1971-----	440	382	134	35.0	248	58	17.8	18.7	25.2	
1972-----	453	387	141	36.4	246	66	17.8	18.7	25.1	
1973-----	448	380	142	37.4	238	68	17.5	18.4	25.0	
1974-----	449	377	138	36.5	239	72	17.4	18.3	24.9	
1975-----	461	385	139	36.1	246	76	17.5	18.5	24.8	
1976-----	457	379	138	36.4	241	78	17.4	18.4	24.7	
1977-----	483	406	162	40.0	243	78	17.6	18.5	24.6	
1978-----	497	417	169	40.4	249	80	17.7	18.6	24.6	
1979-----	508	424	169	39.8	256	84	17.7	18.6	24.5	
1980-----	518	432	172	39.7	260	86	17.7	18.6	24.4	
1981-----	510	423	168	39.7	255	87	17.3	18.3	24.3	
1982-----	515	433	189	43.5	245	82	17.3	18.1	24.2	
1983-----	512	430	187	43.5	243	83	17.2	18.0	24.2	
1984-----	511	428	188	43.9	240	83	17.1	17.9	24.1	
1985-----	501	419	187	44.7	232	81	16.9	17.7	24.0	
1986-----	475	397	183	46.0	215	78	16.4	17.0	23.9	
1987-----	464	388	182	47.0	206	75	16.2	16.7	23.8	
1988-----	453	380	182	47.8	198	73	16.0	16.5	23.8	
1989-----	440	369	179	48.4	191	71	15.8	16.2	23.7	
1990-----	466	391	185	47.3	206	75	16.0	16.5	23.6	
1991-----	435	364	175	48.1	189	70	15.4	15.8	23.5	
1992-----	453	380	179	47.0	202	73	15.6	16.0	23.4	
1993-----	449	375	174	46.4	201	74	15.4	15.8	23.4	
1994-----	464	388	177	45.6	211	77	15.5	16.0	23.3	
1995-----	476	396	176	44.5	220	80	15.5	16.0	23.2	
1996-----	475	394	172	43.7	222	81	15.3	15.8	23.1	
1997-----	500	413	175	42.2	239	86	15.4	16.0	23.0	
1998-----	517	426	174	40.8	252	91	15.5	16.1	23.0	
1999-----	535	440	178	40.5	262	95	15.6	16.2	22.9	
2000-----	550	452	179	39.6	273	99	15.6	16.3	22.8	
2001-----	593	484	185	38.3	299	109	16.1	16.9	22.7	
2002-----	598	488	186	38.2	301	111	16.1	16.9	22.7	
2003-----	603	491	187	38.1	304	113	16.0	16.8	22.6	
2004-----	609	494	188	38.1	306	114	16.0	16.8	22.6	
2005-----	614	497	189	38.0	308	116	15.9	16.8	22.5	
2006-----	659	538	215	40.0	323	121	16.5	17.4	22.5	
2007-----	664	541	216	40.0	325	123	16.5	17.3	22.4	
2008-----	669	544	217	39.9	327	124	16.4	17.3	22.4	
2009-----	674	548	218	39.9	329	126	16.4	17.3	22.3	
2010-----	679	551	220	39.8	332	128	16.4	17.2	22.3	
2011-----	674	549	230	42.0	318	125	16.2	17.0	22.3	
2012-----	679	552	231	41.9	320	127	16.1	16.9	22.2	
2013-----	683	555	233	41.9	322	128	16.1	16.9	22.2	
2014-----	688	558	234	41.9	324	130	16.1	16.8	22.1	
2015-----	692	561	235	41.8	326	131	16.0	16.8	22.1	
2016-----	720	586	247	42.1	339	135	16.6	17.4	22.1	
2017-----	725	589	248	42.1	341	136	16.5	17.4	22.1	
2018-----	730	593	249	42.0	344	138	16.5	17.4	22.0	
2019-----	735	596	250	42.0	346	139	16.5	17.3	22.0	
2020-----	740	599	252	42.0	348	140	16.5	17.3	22.0	

TABLE 35.—*Series 1 projections of housing demand in the North Central region, by type of unit, 1971–2020*

Year	Total all types	New construction				Mobile homes	Relation of region to United States totals		
		New construction		Mobile homes	Total units		New con- struction	Population	
		Total	One-unit		Multiunit				
	Thousand units	Thousand units	Thousand units	Percent	Thousand units	Thousand units	Percent	Percent	Percent
1971	621	494	270	54.7	224	126	25.1	24.2	27.6
1972	643	500	282	56.5	218	143	25.2	24.2	27.5
1973	645	498	288	57.8	210	147	25.2	24.1	27.5
1974	654	498	283	56.8	215	156	25.3	24.2	27.4
1975	675	512	288	56.2	224	163	25.6	24.5	27.3
1976	671	502	284	56.6	218	169	25.6	24.3	27.2
1977	703	536	326	60.8	210	167	25.6	24.4	27.2
1978	722	550	337	61.2	213	172	25.7	24.5	27.1
1979	737	557	336	60.3	221	180	25.7	24.4	27.1
1980	752	566	341	60.2	225	186	25.7	24.4	27.0
1981	755	567	341	60.1	227	188	25.7	24.5	26.9
1982	763	587	380	64.7	207	176	25.7	24.6	26.9
1983	764	586	379	64.7	207	178	25.7	24.5	26.8
1984	766	587	383	65.1	205	179	25.7	24.5	26.8
1985	757	581	384	66.1	197	176	25.6	24.5	26.7
1986	733	565	383	67.7	182	168	25.3	24.2	26.6
1987	722	559	385	68.9	174	163	25.2	24.1	26.6
1988	712	554	388	69.9	167	158	25.2	24.0	26.5
1989	699	545	385	70.6	160	154	25.1	24.0	26.5
1990	732	569	394	69.3	175	163	25.1	24.0	26.4
1991	700	547	385	70.3	162	153	24.8	23.7	26.3
1992	724	565	389	68.9	176	159	24.8	23.7	26.3
1993	722	561	382	68.2	179	161	24.8	23.7	26.2
1994	742	575	386	67.2	189	167	24.8	23.7	26.2
1995	759	584	384	65.8	200	175	24.8	23.7	26.1
1996	763	585	380	64.9	205	178	24.5	23.4	26.0
1997	796	606	382	63.1	224	191	24.6	23.4	26.0
1998	820	618	379	61.3	240	202	24.6	23.4	25.9
1999	845	636	387	60.9	249	209	24.6	23.4	25.9
2000	867	648	388	59.8	261	219	24.6	23.4	25.8
2001	923	682	396	58.1	286	241	25.1	23.8	25.8
2002	933	687	398	57.9	289	246	25.0	23.8	25.7
2003	943	693	401	57.8	292	250	25.0	23.8	25.7
2004	953	699	403	57.7	296	254	25.0	23.8	25.6
2005	962	705	406	57.6	299	258	25.0	23.7	25.6
2006	991	730	438	60.0	292	261	24.9	23.6	25.6
2007	1,001	736	441	59.9	295	265	24.9	23.6	25.5
2008	1,010	742	443	59.8	298	269	24.8	23.6	25.5
2009	1,020	747	446	59.7	301	272	24.8	23.5	25.4
2010	1,029	753	449	59.6	304	276	24.8	23.5	25.4
2011	1,057	780	485	62.2	295	278	25.4	24.1	25.4
2012	1,067	786	488	62.1	298	281	25.4	24.1	25.4
2013	1,076	791	491	62.1	300	284	25.4	24.1	25.3
2014	1,085	797	494	62.0	303	287	25.3	24.1	25.3
2015	1,094	803	498	61.9	306	291	25.3	24.1	25.3
2016	1,098	806	502	62.2	305	292	25.3	24.0	25.3
2017	1,107	812	505	62.1	308	295	25.3	24.0	25.3
2018	1,116	818	508	62.1	310	298	25.3	24.0	25.2
2019	1,125	824	511	62.0	313	301	25.2	24.0	25.2
2020	1,134	830	514	62.0	316	304	25.2	23.9	25.2

TABLE 36.—*Series 1 projections of housing demand in the South, by type of unit, 1971–2020*

Year	Total all types	New construction				Mobile homes	Relation of region to United States totals			
							Total units	Percent	Population	
		Total	One-unit	Multiunit						
	Thousand units	Thousand units	Thousand units	Percent	Thousand units	Thousand units	Percent	Percent	Percent	
1971-----	875	714	426	59.7	288	161	35.3	34.9	30.3	
1972-----	898	719	441	61.3	278	178	35.2	34.8	30.3	
1973-----	898	717	448	62.5	268	181	35.0	34.6	30.4	
1974-----	906	714	438	61.3	276	192	35.1	34.7	30.4	
1975-----	927	726	440	60.6	286	200	35.2	34.8	30.5	
1976-----	935	728	443	60.8	285	207	35.6	35.3	30.6	
1977-----	972	770	504	65.4	266	202	35.5	35.1	30.6	
1978-----	995	788	519	65.9	269	207	35.4	35.0	30.7	
1979-----	1,015	797	517	64.9	280	217	35.3	35.0	30.7	
1980-----	1,033	809	524	64.8	285	224	35.3	34.9	30.8	
1981-----	1,047	817	528	64.6	289	231	35.7	35.3	30.9	
1982-----	1,060	846	590	69.8	256	214	35.7	35.4	30.9	
1983-----	1,064	847	590	69.7	257	217	35.8	35.5	31.0	
1984-----	1,070	853	598	70.2	254	218	35.8	35.6	31.0	
1985-----	1,063	849	605	71.3	244	214	36.0	35.8	31.1	
1986-----	1,055	848	620	73.1	228	207	36.4	36.2	31.2	
1987-----	1,046	846	629	74.4	217	200	36.6	36.4	31.2	
1988-----	1,038	845	639	75.6	206	194	36.7	36.6	31.3	
1989-----	1,027	838	640	76.4	198	189	36.9	36.9	31.3	
1990-----	1,070	868	650	74.8	219	202	36.7	36.7	31.4	
1991-----	1,045	856	651	76.1	204	190	37.1	37.1	31.5	
1992-----	1,079	880	656	74.5	225	198	37.0	37.0	31.5	
1993-----	1,080	878	647	73.6	232	202	37.1	37.1	31.6	
1994-----	1,109	898	651	72.5	247	212	37.1	37.0	31.6	
1995-----	1,135	912	647	71.0	265	223	37.0	36.9	31.7	
1996-----	1,159	928	649	69.9	279	230	37.3	37.1	31.8	
1997-----	1,204	955	649	67.9	307	248	37.1	37.0	31.8	
1998-----	1,239	974	641	65.9	332	265	37.1	36.9	31.9	
1999-----	1,273	999	654	65.5	345	274	37.0	36.8	31.9	
2000-----	1,306	1,018	655	64.3	363	288	37.0	36.7	32.0	
2001-----	1,345	1,036	648	62.6	387	309	36.5	36.2	32.0	
2002-----	1,361	1,046	654	62.5	393	314	36.5	36.2	32.1	
2003-----	1,377	1,057	659	62.3	398	320	36.6	36.3	32.1	
2004-----	1,393	1,068	664	62.2	404	325	36.6	36.3	32.2	
2005-----	1,410	1,079	670	62.1	409	331	36.6	36.3	32.2	
2006-----	1,464	1,127	728	64.6	399	337	36.7	36.4	32.2	
2007-----	1,480	1,138	734	64.5	404	342	36.8	36.5	32.3	
2008-----	1,496	1,149	740	64.4	409	348	36.8	36.5	32.3	
2009-----	1,513	1,160	746	64.3	414	353	36.8	36.5	32.4	
2010-----	1,529	1,171	752	64.2	419	358	36.9	36.6	32.4	
2011-----	1,514	1,166	781	66.9	386	348	36.3	36.1	32.4	
2012-----	1,529	1,177	787	66.9	390	352	36.4	36.1	32.4	
2013-----	1,544	1,187	793	66.8	394	357	36.4	36.1	32.5	
2014-----	1,558	1,197	799	66.7	398	361	36.4	36.2	32.5	
2015-----	1,573	1,208	805	66.7	403	365	36.4	36.2	32.5	
2016-----	1,588	1,220	816	66.9	404	368	36.6	36.3	32.5	
2017-----	1,603	1,231	823	66.8	408	372	36.6	36.3	32.5	
2018-----	1,618	1,241	829	66.8	412	377	36.6	36.4	32.6	
2019-----	1,633	1,252	835	66.7	417	381	36.6	36.4	32.6	
2020-----	1,648	1,262	841	66.6	421	385	36.7	36.4	32.6	

TABLE 37.—*Series 1 projections of housing demand in the West, by type of unit, 1971–2020*

Year	Total all types	New construction				Mobile homes	Relation of region to United States totals		
		New construction		Mobile homes	Total units		New con- struction	Population	
		Total	One-unit		Multiuunit				
	Thousand units	Thousand units	Thousand units	Percent	Thousand units	Thousand units	Percent	Percent	Percent
1971	541	453	235	51.9	218	88	21.8	22.2	16.9
1972	557	460	247	53.7	213	97	21.8	22.3	17.1
1973	574	476	261	54.9	215	98	22.4	23.0	17.2
1974	574	471	253	53.7	218	103	22.2	22.8	17.3
1975	573	465	248	53.2	218	108	21.7	22.3	17.4
1976	560	454	244	53.7	210	106	21.3	22.0	17.5
1977	583	481	283	58.8	198	103	21.3	21.9	17.6
1978	598	493	293	59.4	200	105	21.3	21.9	17.6
1979	612	501	293	58.4	209	110	21.3	22.0	17.7
1980	624	511	298	58.3	213	114	21.3	22.0	17.8
1981	625	507	296	58.3	212	118	21.3	21.9	17.9
1982	633	524	334	63.7	190	109	21.3	21.9	18.0
1983	636	525	334	63.6	191	111	21.3	22.0	18.0
1984	639	528	338	64.1	189	111	21.4	22.0	18.1
1985	634	525	343	65.3	182	109	21.5	22.1	18.2
1986	635	529	355	67.2	173	106	21.9	22.6	18.3
1987	630	527	362	68.6	165	103	22.0	22.7	18.4
1988	625	526	368	69.9	158	99	22.1	22.8	18.4
1989	618	521	369	70.8	152	97	22.2	22.9	18.5
1990	645	541	374	69.1	167	104	22.1	22.8	18.6
1991	637	539	380	70.5	159	98	22.6	23.4	18.7
1992	657	555	381	68.7	173	102	22.6	23.3	18.8
1993	659	554	376	67.9	178	105	22.6	23.4	18.8
1994	677	567	378	66.6	189	110	22.6	23.4	18.9
1995	693	577	375	65.0	202	116	22.6	23.4	19.0
1996	713	592	379	63.9	213	121	22.9	23.7	19.1
1997	741	610	377	61.8	233	131	22.9	23.6	19.2
1998	763	623	372	59.7	251	140	22.9	23.6	19.2
1999	785	640	379	59.3	261	145	22.8	23.6	19.3
2000	806	653	379	58.1	274	152	22.8	23.6	19.4
2001	822	659	372	56.4	288	163	22.3	23.0	19.5
2002	832	666	375	56.3	291	166	22.3	23.1	19.5
2003	842	673	378	56.2	295	169	22.4	23.1	19.6
2004	852	680	382	56.1	299	172	22.4	23.1	19.6
2005	862	687	385	56.0	303	175	22.4	23.2	19.7
2006	873	699	410	58.7	288	174	21.9	22.6	19.7
2007	882	705	414	58.7	292	177	21.9	22.6	19.8
2008	892	712	417	58.6	295	179	21.9	22.6	19.8
2009	901	719	421	58.5	298	182	21.9	22.6	19.9
2010	911	726	424	58.4	302	185	21.9	22.7	19.9
2011	922	739	453	61.2	286	183	22.1	22.9	19.9
2012	931	746	456	61.2	289	185	22.1	22.9	20.0
2013	940	752	460	61.1	292	188	22.2	22.9	20.0
2014	949	759	463	61.1	295	190	22.2	22.9	20.1
2015	958	765	467	61.0	298	193	22.2	22.9	20.1
2016	938	748	458	61.2	290	190	21.6	22.3	20.1
2017	947	755	462	61.2	293	192	21.6	22.3	20.1
2018	955	761	465	61.1	296	194	21.6	22.3	20.2
2019	964	767	469	61.1	299	196	21.6	22.3	20.2
2020	972	773	472	61.0	301	199	21.6	22.3	20.2

TABLE 38.—*Series 2 projections of housing demand in the Northeast, by type of unit, 1971–2020*

Year	Total all types	New construction				Mobile homes	Relation of region to United States totals			
		New construction		Mobile homes	Total units		New con- struction Population			
		Total	One-unit		Multiunit					
	Thousand units	Thousand units	Thousand units	Percent	Thousand units	Thousand units	Percent	Percent	Percent	
1971-----	397	341	121	35.5	220	56	17.1	17.9	25.2	
1972-----	428	364	134	36.7	230	64	17.3	18.2	25.1	
1973-----	442	376	141	37.6	235	65	17.9	18.8	25.0	
1974-----	432	363	134	36.8	229	69	17.3	18.2	24.9	
1975-----	433	360	131	36.5	229	72	17.2	18.1	24.8	
1976-----	439	364	133	36.7	231	75	17.5	18.5	24.7	
1977-----	464	390	157	40.4	232	74	17.7	18.7	24.6	
1978-----	477	400	163	40.8	237	77	17.8	18.7	24.6	
1979-----	486	406	163	40.1	243	80	17.8	18.8	24.5	
1980-----	495	412	165	40.0	247	83	17.8	18.8	24.4	
1981-----	484	401	160	40.0	241	83	17.3	18.3	24.3	
1982-----	490	412	180	43.9	231	78	17.3	18.2	24.2	
1983-----	488	408	179	43.8	229	79	17.2	18.1	24.2	
1984-----	486	407	180	44.2	227	80	17.2	18.0	24.1	
1985-----	475	397	179	45.1	218	78	17.0	17.7	24.0	
1986-----	454	380	176	46.4	204	75	16.5	17.1	23.9	
1987-----	443	370	175	47.3	195	72	16.3	16.9	23.8	
1988-----	432	362	175	48.2	188	70	16.1	16.6	23.8	
1989-----	418	350	171	48.8	179	68	15.9	16.3	23.7	
1990-----	430	361	175	48.5	186	70	16.0	16.4	23.6	
1991-----	393	330	164	49.8	165	64	15.3	15.6	23.5	
1992-----	407	342	167	48.9	175	66	15.4	15.7	23.4	
1993-----	400	334	162	48.5	172	65	15.2	15.6	23.4	
1994-----	408	341	164	48.1	177	67	15.3	15.6	23.3	
1995-----	406	338	159	47.1	179	68	15.2	15.5	23.2	
1996-----	394	326	151	46.5	174	68	14.8	15.1	23.1	
1997-----	411	340	153	45.1	186	72	14.9	15.3	23.0	
1998-----	422	347	152	43.7	195	75	14.9	15.4	23.0	
1999-----	433	356	155	43.5	201	77	15.0	15.5	22.9	
2000-----	442	361	152	42.1	209	80	15.0	15.6	22.8	
2001-----	476	386	154	39.8	232	90	15.6	16.3	22.7	
2002-----	479	388	154	39.8	234	91	15.6	16.3	22.7	
2003-----	483	391	155	39.7	236	92	15.5	16.2	22.6	
2004-----	486	393	156	39.6	237	93	15.5	16.2	22.6	
2005-----	490	395	156	39.6	239	95	15.5	16.2	22.5	
2006-----	535	433	173	39.8	261	102	16.2	17.0	22.5	
2007-----	539	436	174	39.8	263	103	16.2	17.0	22.4	
2008-----	544	439	175	39.7	265	104	16.1	17.0	22.4	
2009-----	548	443	176	39.7	267	106	16.1	16.9	22.3	
2010-----	553	446	177	39.6	269	107	16.1	16.9	22.3	
2011-----	543	438	182	41.6	256	105	15.9	16.6	22.3	
2012-----	547	440	183	41.5	257	107	15.8	16.6	22.2	
2013-----	550	442	184	41.5	259	108	15.8	16.6	22.2	
2014-----	553	444	184	41.5	260	109	15.8	16.5	22.1	
2015-----	557	447	185	41.4	262	110	15.8	16.5	22.1	
2016-----	554	446	191	42.8	255	109	16.2	17.0	22.1	
2017-----	557	448	192	42.8	256	110	16.2	17.0	22.1	
2018-----	560	450	192	42.7	258	110	16.2	16.9	22.0	
2019-----	563	452	193	42.7	259	111	16.1	16.9	22.0	
2020-----	566	454	194	42.7	260	112	16.1	16.9	22.0	

TABLE 39.—Series 2 projections of housing demand in the North Central region, by type of unit, 1971–2020

Year	Total all types	New construction			Mobile homes	Relation of region to United States totals			
		Total	One-unit	Multiunit		Total units	New con- struction	Population	
		Thousand units	Thousand units	Thousand units	Percent	Thousand units	Percent	Percent	
1971	569	447	249	55.6	199	122	24.5	23.5	27.6
1972	620	481	273	56.7	208	138	25.1	24.1	27.5
1973	618	476	276	58.1	200	141	25.0	23.8	27.5
1974	622	473	269	57.0	203	150	24.9	23.7	27.4
1975	627	471	266	56.6	204	157	24.9	23.6	27.3
1976	636	473	268	56.7	205	163	25.4	24.1	27.2
1977	666	506	309	61.1	197	160	25.5	24.2	27.2
1978	684	518	319	61.6	199	165	25.5	24.3	27.1
1979	698	524	318	60.6	207	173	25.5	24.3	27.1
1980	711	533	322	60.5	210	178	25.6	24.3	27.0
1981	711	530	320	60.4	210	181	25.4	24.2	26.9
1982	718	549	358	65.2	191	169	25.4	24.2	26.9
1983	719	547	356	65.1	191	171	25.4	24.2	26.8
1984	720	548	359	65.6	189	172	25.4	24.2	26.8
1985	709	541	361	66.7	180	168	25.4	24.1	26.7
1986	690	529	361	68.3	168	162	25.0	23.8	26.6
1987	679	522	363	69.5	159	157	25.0	23.7	26.6
1988	668	517	365	70.6	152	152	24.9	23.7	26.5
1989	654	506	361	71.3	145	147	24.8	23.6	26.5
1990	670	519	368	71.0	150	151	24.8	23.6	26.4
1991	630	492	357	72.7	134	138	24.5	23.3	26.3
1992	648	506	362	71.5	144	142	24.5	23.3	26.3
1993	641	499	354	71.0	144	142	24.4	23.2	26.2
1994	653	507	357	70.5	150	146	24.4	23.2	26.2
1995	653	504	349	69.3	155	149	24.4	23.2	26.1
1996	643	494	338	68.5	156	149	24.1	22.8	26.0
1997	666	508	339	66.8	169	158	24.1	22.9	26.0
1998	681	515	335	65.0	180	166	24.1	22.9	25.9
1999	696	526	340	64.8	185	170	24.1	22.9	25.9
2000	709	530	334	62.9	197	178	24.1	22.9	25.8
2001	753	554	333	60.1	221	199	24.7	23.4	25.8
2002	760	558	335	60.0	223	202	24.7	23.4	25.7
2003	767	562	337	59.9	225	205	24.7	23.4	25.7
2004	774	566	338	59.8	227	208	24.7	23.3	25.6
2005	780	570	340	59.7	229	211	24.7	23.3	25.6
2006	810	590	355	60.0	236	220	24.5	23.2	25.6
2007	818	595	357	60.0	238	223	24.5	23.2	25.5
2008	825	600	359	59.9	241	226	24.5	23.2	25.5
2009	833	604	361	59.8	243	229	24.5	23.1	25.4
2010	840	609	363	59.7	245	232	24.5	23.1	25.4
2011	860	626	388	61.9	238	234	25.1	23.8	25.4
2012	867	630	390	61.9	240	237	25.1	23.8	25.4
2013	873	634	392	61.8	242	240	25.1	23.7	25.3
2014	880	637	394	61.8	244	242	25.1	23.7	25.3
2015	886	641	396	61.7	246	245	25.1	23.7	25.3
2016	855	620	392	63.3	228	235	25.0	23.6	25.3
2017	861	623	394	63.2	229	237	25.0	23.6	25.3
2018	866	627	396	63.2	231	239	25.0	23.6	25.2
2019	872	630	398	63.2	232	241	25.0	23.6	25.2
2020	877	634	400	63.1	234	243	25.0	23.6	25.2

TABLE 40.—Series 2 projections of housing demand in the South, by type of unit, 1971–2020

Year	Total all types	New construction				Mobile homes	Relation of region to United States totals		
		New construction		Mobile homes	Total units		New con- struction	Population	
		Total	One-unit		Multiunit				
	Thousand units	Thousand units	Thousand units	Percent	Thousand units	Thousand units	Percent	Percent	Percent
1971-----	844	688	414	60.1	274	156	36.3	36.1	30.3
1972-----	876	703	434	61.6	270	173	35.5	35.2	30.3
1973-----	874	699	439	62.9	259	175	35.3	35.0	30.4
1974-----	892	707	435	61.5	272	185	35.7	35.4	30.4
1975-----	898	705	430	61.0	275	193	35.6	35.3	30.5
1976-----	896	695	426	61.3	269	201	35.8	35.4	30.6
1977-----	930	735	485	66.0	250	195	35.6	35.2	30.6
1978-----	950	751	499	66.4	252	199	35.5	35.1	30.7
1979-----	967	758	496	65.4	262	209	35.4	35.1	30.7
1980-----	983	768	501	65.3	267	215	35.4	35.0	30.8
1981-----	1,004	781	508	65.0	273	223	35.9	35.6	30.9
1982-----	1,015	809	568	70.2	241	206	35.9	35.7	30.9
1983-----	1,018	809	568	70.2	242	209	36.0	35.8	31.0
1984-----	1,023	813	574	70.6	239	210	36.1	35.9	31.0
1985-----	1,013	808	580	71.8	227	205	36.2	36.1	31.1
1986-----	1,010	811	597	73.6	214	200	36.6	36.5	31.2
1987-----	1,000	807	605	75.0	202	193	36.8	36.7	31.2
1988-----	992	806	614	76.2	191	186	37.0	36.9	31.3
1989-----	978	798	615	77.1	182	181	37.1	37.2	31.3
1990-----	1,001	815	626	76.7	190	186	37.1	37.1	31.4
1991-----	967	797	628	78.8	169	170	37.6	37.7	31.5
1992-----	992	817	632	77.4	184	176	37.5	37.6	31.5
1993-----	987	811	624	76.9	187	177	37.6	37.7	31.6
1994-----	1,006	823	628	76.3	195	182	37.6	37.7	31.6
1995-----	1,009	822	615	74.9	206	188	37.7	37.8	31.7
1996-----	1,015	824	610	74.1	213	191	38.0	38.1	31.8
1997-----	1,047	841	606	72.1	235	205	37.9	37.9	31.8
1998-----	1,069	851	596	70.1	255	218	37.9	37.8	31.9
1999-----	1,091	868	605	69.8	262	224	37.8	37.8	31.9
2000-----	1,112	875	592	67.7	283	237	37.8	37.7	32.0
2001-----	1,136	879	569	64.8	309	257	37.2	37.1	32.0
2002-----	1,147	886	573	64.7	313	261	37.3	37.1	32.1
2003-----	1,159	893	577	64.6	316	265	37.3	37.2	32.1
2004-----	1,170	901	581	64.5	320	269	37.3	37.2	32.2
2005-----	1,181	908	585	64.4	324	273	37.3	37.2	32.2
2006-----	1,235	948	613	64.7	335	287	37.4	37.2	32.2
2007-----	1,248	956	618	64.6	339	291	37.4	37.2	32.3
2008-----	1,261	965	623	64.5	343	295	37.4	37.3	32.3
2009-----	1,273	974	627	64.4	347	299	37.4	37.3	32.4
2010-----	1,286	983	632	64.3	351	304	37.5	37.3	32.4
2011-----	1,263	967	646	66.8	322	296	36.9	36.7	32.4
2012-----	1,274	975	650	66.7	325	299	36.9	36.8	32.4
2013-----	1,285	982	654	66.6	328	303	36.9	36.8	32.5
2014-----	1,295	989	658	66.5	331	306	37.0	36.8	32.5
2015-----	1,306	997	662	66.5	334	310	37.0	36.9	32.5
2016-----	1,274	975	664	68.1	311	299	37.3	37.2	32.5
2017-----	1,284	982	668	68.0	314	301	37.3	37.2	32.5
2018-----	1,293	989	672	68.0	316	304	37.3	37.2	32.6
2019-----	1,302	996	676	67.9	319	307	37.3	37.3	32.6
2020-----	1,312	1,002	680	67.9	322	310	37.3	37.3	32.6

TABLE 41.—*Series 2 projections of housing demand in the West, by type of unit, 1971–2020*

Year	Total all types	New construction				Mobile homes	Relation of region to United States totals		
		New construction		Mobile homes	Total units		New con- struction	Population	
		Total	One-unit		Multiunit				
	Thousand units	Thousand units	Thousand units	Percent	Thousand units	Thousand units	Percent	Percent	Percent
1971-----	515	429	224	52.2	205	86	22.2	22.5	16.9
1972-----	541	447	241	53.9	206	94	22.0	22.4	17.1
1973-----	541	446	247	55.3	199	95	21.9	22.3	17.2
1974-----	552	452	244	53.9	209	100	22.1	22.7	17.3
1975-----	564	460	244	53.2	215	104	22.4	23.0	17.4
1976-----	533	430	232	53.8	199	103	21.3	21.9	17.5
1977-----	555	456	270	59.2	186	99	21.2	21.8	17.6
1978-----	569	467	279	59.8	188	101	21.2	21.9	17.6
1979-----	581	474	279	58.7	196	106	21.3	21.9	17.7
1980-----	592	482	283	58.7	199	109	21.3	22.0	17.8
1981-----	594	479	281	58.6	199	114	21.3	21.9	17.9
1982-----	601	496	318	64.1	178	105	21.3	21.9	18.0
1983-----	602	496	318	64.1	178	107	21.3	21.9	18.0
1984-----	605	498	322	64.6	176	107	21.3	22.0	18.1
1985-----	599	494	326	65.9	169	105	21.4	22.1	18.2
1986-----	603	500	339	67.8	161	103	21.9	22.5	18.3
1987-----	597	498	345	69.3	153	99	22.0	22.7	18.4
1988-----	592	496	351	70.6	146	95	22.0	22.8	18.4
1989-----	583	491	352	71.6	139	92	22.1	22.9	18.5
1990-----	597	502	357	71.2	145	95	22.1	22.9	18.6
1991-----	583	496	365	73.6	131	87	22.7	23.5	18.7
1992-----	599	509	366	72.0	143	90	22.6	23.4	18.8
1993-----	596	505	361	71.5	144	91	22.7	23.5	18.8
1994-----	607	513	363	70.7	150	94	22.7	23.5	18.9
1995-----	610	512	355	69.2	158	98	22.8	23.5	19.0
1996-----	618	518	354	68.4	164	100	23.2	24.0	19.1
1997-----	638	530	350	66.1	179	108	23.1	23.9	19.2
1998-----	652	536	343	64.0	193	115	23.1	23.9	19.2
1999-----	666	547	348	63.6	199	118	23.1	23.8	19.3
2000-----	678	552	339	61.4	213	126	23.1	23.8	19.4
2001-----	686	550	320	58.3	229	137	22.5	23.2	19.5
2002-----	693	554	323	58.2	232	139	22.5	23.2	19.5
2003-----	700	559	325	58.1	234	141	22.5	23.2	19.6
2004-----	706	563	327	58.1	236	143	22.5	23.3	19.6
2005-----	713	568	329	58.0	239	145	22.5	23.3	19.7
2006-----	724	575	337	58.5	239	149	21.9	22.6	19.7
2007-----	731	581	339	58.4	241	151	21.9	22.6	19.8
2008-----	739	586	342	58.4	244	153	21.9	22.6	19.8
2009-----	746	591	345	58.3	246	155	21.9	22.6	19.9
2010-----	753	596	347	58.2	249	157	21.9	22.6	19.9
2011-----	758	602	366	60.8	236	156	22.1	22.9	19.9
2012-----	764	606	368	60.8	238	158	22.1	22.9	20.0
2013-----	771	611	371	60.7	240	160	22.2	22.9	20.0
2014-----	777	615	373	60.7	242	162	22.2	22.9	20.1
2015-----	784	620	376	60.6	244	164	22.2	22.9	20.1
2016-----	736	582	363	62.4	219	154	21.5	22.2	20.1
2017-----	741	586	365	62.3	221	156	21.5	22.2	20.1
2018-----	746	589	367	62.3	222	157	21.5	22.2	20.2
2019-----	752	593	369	62.2	224	159	21.5	22.2	20.2
2020-----	757	597	371	62.2	226	160	21.5	22.2	20.2

TABLE 42.—*Series 3 projections of housing demand in the Northeast, by type of unit, 1971–2020*

Year	Total all types	New construction				Mobile homes	Relation of region to United States totals		
		New construction		Mobile homes	Total units		New con- struction	Population	
		Total	One-unit		Multiunit				
	Thousand units	Thousand units	Thousand units	Percent	Thousand units	Thousand units	Percent	Percent	Percent
1971-----	367	314	112	35.7	202	53	16.7	17.5	25.2
1972-----	396	336	124	36.9	212	61	17.1	17.9	25.1
1973-----	409	347	131	37.9	216	62	17.2	18.0	25.0
1974-----	408	343	127	37.0	216	65	17.2	18.1	24.9
1975-----	418	349	128	36.5	222	68	17.3	18.2	24.8
1976-----	415	343	126	36.7	217	72	17.4	18.4	24.7
1977-----	437	366	148	40.5	218	71	17.5	18.4	24.6
1978-----	447	374	153	40.9	221	73	17.6	18.5	24.6
1979-----	453	376	151	40.1	225	77	17.5	18.5	24.5
1980-----	460	380	152	40.0	228	79	17.5	18.4	24.4
1981-----	450	370	148	39.9	222	80	17.0	17.9	24.3
1982-----	454	379	167	44.0	212	75	17.0	17.8	24.2
1983-----	451	375	165	43.9	210	76	16.9	17.7	24.2
1984-----	448	372	165	44.3	207	76	16.8	17.6	24.1
1985-----	436	361	164	45.3	198	74	16.6	17.3	24.0
1986-----	417	346	161	46.7	185	71	16.1	16.7	23.9
1987-----	405	336	160	47.7	176	69	15.9	16.4	23.8
1988-----	395	328	160	48.6	169	67	15.7	16.1	23.8
1989-----	380	316	155	49.2	160	65	15.5	15.8	23.7
1990-----	385	320	158	49.4	162	65	15.5	15.8	23.6
1991-----	342	283	144	50.9	139	59	14.7	14.8	23.5
1992-----	357	297	149	50.1	148	60	14.8	15.0	23.4
1993-----	346	287	143	49.8	144	60	14.6	14.8	23.4
1994-----	355	294	145	49.3	149	61	14.7	14.9	23.3
1995-----	344	283	138	48.6	146	61	14.5	14.6	23.2
1996-----	332	271	130	48.0	141	61	14.0	14.1	23.1
1997-----	347	283	132	46.7	151	64	14.2	14.4	23.0
1998-----	355	288	131	45.4	157	66	14.2	14.5	23.0
1999-----	362	295	133	45.3	161	68	14.3	14.6	22.9
2000-----	367	297	129	43.6	167	71	14.3	14.6	22.8
2001-----	388	311	129	41.4	182	77	14.8	15.3	22.7
2002-----	391	313	129	41.4	184	78	14.8	15.3	22.7
2003-----	393	315	130	41.3	185	78	14.8	15.3	22.6
2004-----	396	317	131	41.3	186	79	14.7	15.3	22.6
2005-----	399	318	131	41.2	187	80	14.7	15.2	22.5
2006-----	424	338	140	41.4	198	85	15.4	16.0	22.5
2007-----	427	340	141	41.3	200	86	15.4	16.0	22.4
2008-----	429	342	141	41.3	201	87	15.4	16.0	22.4
2009-----	432	344	142	41.3	202	88	15.3	16.0	22.3
2010-----	435	346	143	41.2	203	89	15.3	15.9	22.3
2011-----	405	320	137	43.0	182	85	14.8	15.3	22.3
2012-----	407	321	138	43.0	183	86	14.8	15.3	22.2
2013-----	409	323	139	42.9	184	86	14.8	15.3	22.2
2014-----	411	324	139	42.9	185	87	14.8	15.3	22.1
2015-----	413	326	140	42.9	186	88	14.8	15.3	22.1
2016-----	401	314	136	43.4	178	87	15.2	15.7	22.1
2017-----	403	315	137	43.4	178	87	15.2	15.7	22.1
2018-----	404	317	137	43.4	179	88	15.2	15.7	22.0
2019-----	406	318	138	43.4	180	88	15.1	15.7	22.0
2020-----	408	319	138	43.4	181	89	15.1	15.7	22.0

TABLE 43.—*Series 3 projections of housing demand in the North Central region, by type of unit, 1971–2020*

Year	Total all types	New construction			Mobile homes	Relation of region to United States totals		
		Total	One-unit	Multiunit		Total units	New con- struction	Population
		Thousand units	Thousand units	Thousand units	Percent	Thousand units	Percent	Percent
1971	534	418	234	185	115	24.3	23.3	27.6
1972	571	439	251	188	131	24.6	23.5	27.5
1973	588	454	264	189	134	24.7	23.6	27.5
1974	590	448	257	192	142	24.8	23.7	27.4
1975	604	456	258	198	148	25.0	23.8	27.3
1976	603	446	253	193	157	25.2	23.9	27.2
1977	630	476	292	184	154	25.3	24.0	27.2
1978	644	485	300	186	158	25.3	24.0	27.1
1979	654	488	297	192	166	25.3	23.9	27.1
1980	664	493	299	194	171	25.3	23.9	27.0
1981	664	491	296	194	174	25.2	23.8	26.9
1982	670	509	333	176	162	25.2	23.9	26.9
1983	669	505	330	175	164	25.1	23.8	26.8
1984	669	505	332	173	164	25.1	23.8	26.8
1985	656	496	332	164	160	25.1	23.8	26.7
1986	640	486	333	152	154	24.7	23.4	26.6
1987	628	479	335	144	149	24.6	23.3	26.6
1988	617	473	337	137	144	24.6	23.3	26.5
1989	601	462	332	130	140	24.5	23.2	26.5
1990	608	468	338	130	140	24.5	23.1	26.4
1991	562	435	322	112	127	24.1	22.7	26.3
1992	581	450	329	121	131	24.1	22.8	26.3
1993	569	440	320	120	129	24.0	22.7	26.2
1994	581	448	323	125	133	24.0	22.7	26.2
1995	570	437	311	126	133	23.9	22.6	26.1
1996	560	427	301	126	133	23.6	22.2	26.0
1997	579	439	302	137	140	23.6	22.3	26.0
1998	590	443	298	146	147	23.6	22.3	25.9
1999	601	451	303	149	149	23.6	22.3	25.9
2000	608	452	293	158	156	23.6	22.3	25.8
2001	636	466	290	176	171	24.3	22.9	25.8
2002	641	468	291	177	173	24.3	22.9	25.7
2003	646	471	292	179	175	24.2	22.8	25.7
2004	651	474	294	180	177	24.2	22.8	25.6
2005	656	477	295	182	179	24.2	22.8	25.6
2006	663	478	297	181	185	24.1	22.6	25.6
2007	668	481	299	182	187	24.1	22.6	25.5
2008	673	484	300	184	189	24.1	22.6	25.5
2009	678	487	302	185	191	24.1	22.6	25.4
2010	683	489	303	187	193	24.0	22.6	25.4
2011	675	485	310	175	190	24.7	23.3	25.4
2012	679	487	311	176	192	24.7	23.3	25.4
2013	683	490	313	177	193	24.7	23.3	25.3
2014	687	492	314	178	195	24.7	23.2	25.3
2015	691	495	316	179	196	24.7	23.2	25.3
2016	650	461	297	165	188	24.6	23.1	25.3
2017	653	463	298	166	190	24.6	23.1	25.3
2018	656	465	299	166	191	24.6	23.0	25.2
2019	659	467	300	167	192	24.6	23.0	25.2
2020	662	469	301	168	193	24.6	23.0	25.2

TABLE 44.—Series 3 projections of housing demand in the South, by type of unit, 1971–2020

Year	Total all types	New construction				Mobile homes	Relation of region to United States totals			
		Total	One-unit		Multiunit		Total units	New con- struction	Population	
			Thousand units	Thousand units						
1971	805	655	395	60.3	260	149	36.6	36.4	30.3	
1972	834	668	414	61.9	254	166	36.0	35.7	30.3	
1973	853	685	432	63.0	254	168	35.8	35.6	30.4	
1974	844	667	413	61.9	254	177	35.5	35.2	30.4	
1975	859	675	413	61.2	262	184	35.5	35.2	30.5	
1976	860	666	409	61.4	257	194	36.0	35.7	30.6	
1977	892	705	466	66.2	238	187	35.8	35.5	30.6	
1978	911	719	479	66.6	240	192	35.8	35.5	30.7	
1979	925	724	475	65.6	249	201	35.8	35.5	30.7	
1980	940	733	479	65.4	253	207	35.8	35.5	30.8	
1981	961	747	486	65.1	260	215	36.4	36.2	30.9	
1982	971	773	545	70.5	228	198	36.4	36.3	30.9	
1983	973	772	543	70.4	229	201	36.5	36.4	31.0	
1984	975	775	549	70.9	226	201	36.6	36.5	31.0	
1985	964	768	554	72.1	214	196	36.8	36.8	31.1	
1986	964	773	572	74.0	201	191	37.2	37.3	31.2	
1987	953	769	580	75.4	189	184	37.4	37.5	31.2	
1988	944	767	588	76.7	179	177	37.6	37.7	31.3	
1989	929	758	588	77.6	170	171	37.8	38.0	31.3	
1990	941	768	598	77.9	170	172	37.8	38.0	31.4	
1991	898	743	597	80.4	145	155	38.4	38.8	31.5	
1992	923	763	603	79.0	160	160	38.3	38.6	31.5	
1993	913	754	594	78.8	160	159	38.5	38.8	31.6	
1994	931	766	597	78.0	169	165	38.5	38.7	31.6	
1995	921	755	581	77.0	173	166	38.6	39.0	31.7	
1996	925	756	578	76.4	179	169	39.0	39.4	31.8	
1997	952	771	573	74.3	198	181	38.9	39.1	31.8	
1998	969	777	563	72.4	214	192	38.8	39.1	31.9	
1999	985	789	571	72.3	219	195	38.8	39.0	31.9	
2000	998	790	553	69.9	238	208	38.8	39.0	32.0	
2001	1,003	781	524	67.1	257	222	38.2	38.4	32.0	
2002	1,011	787	527	67.0	260	225	38.3	38.4	32.1	
2003	1,020	792	530	66.9	262	228	38.3	38.4	32.1	
2004	1,028	798	533	66.8	265	230	38.3	38.4	32.2	
2005	1,037	803	536	66.7	267	233	38.3	38.5	32.2	
2006	1,060	817	547	67.0	269	243	38.5	38.6	32.2	
2007	1,069	823	551	66.9	272	246	38.5	38.6	32.3	
2008	1,078	828	554	66.9	274	249	38.5	38.7	32.3	
2009	1,086	834	557	66.8	277	252	38.5	38.7	32.4	
2010	1,095	840	560	66.7	280	255	38.6	38.7	32.4	
2011	1,039	798	550	68.8	249	241	38.1	38.3	32.4	
2012	1,046	803	552	68.8	251	243	38.1	38.3	32.4	
2013	1,053	808	555	68.7	253	245	38.1	38.3	32.5	
2014	1,060	813	558	68.7	254	247	38.1	38.4	32.5	
2015	1,067	818	561	68.6	256	250	38.2	38.4	32.5	
2016	1,020	780	540	69.2	240	241	38.6	39.0	32.5	
2017	1,026	784	542	69.2	242	242	38.7	39.0	32.5	
2018	1,032	788	545	69.1	243	244	38.7	39.0	32.6	
2019	1,037	792	547	69.1	245	246	38.7	39.0	32.6	
2020	1,043	796	550	69.0	246	247	38.7	39.0	32.6	

TABLE 45.—*Series 3 projections of housing demand in the West, by type of unit, 1971–2020*

Year	Total all types	New construction				Mobile homes	Relation of region to United States totals		
		Total	One-unit		Multiunit		Total units	New con- struction	Population
		Thousand units	Thousand units	Thousand units	Percent	Thousand units	Percent	Percent	Percent
1971-----	494	410	214	52.2	196	83	22.4	22.8	16.9
1972-----	518	427	231	54.0	196	91	22.3	22.8	17.1
1973-----	530	439	243	55.4	196	91	22.3	22.8	17.2
1974-----	533	437	236	54.0	201	96	22.5	23.1	17.3
1975-----	536	436	233	53.4	203	100	22.2	22.8	17.4
1976-----	513	413	223	53.9	191	100	21.5	22.1	17.5
1977-----	533	437	259	59.3	178	96	21.4	22.0	17.6
1978-----	544	446	267	59.9	179	98	21.4	22.0	17.6
1979-----	553	450	265	58.8	185	103	21.4	22.1	17.7
1980-----	562	456	268	58.7	188	105	21.4	22.1	17.8
1981-----	564	453	265	58.6	188	110	21.4	22.0	17.9
1982-----	569	468	301	64.3	167	101	21.4	22.0	18.0
1983-----	570	467	300	64.2	167	103	21.4	22.0	18.0
1984-----	571	468	303	64.8	165	103	21.4	22.1	18.1
1985-----	563	463	306	66.2	156	100	21.5	22.2	18.2
1986-----	568	470	321	68.2	149	98	21.9	22.7	18.3
1987-----	562	467	326	69.8	141	94	22.0	22.8	18.4
1988-----	556	466	332	71.2	134	91	22.1	22.9	18.4
1989-----	547	459	332	72.3	127	88	22.2	23.0	18.5
1990-----	554	465	338	72.5	128	88	22.3	23.0	18.6
1991-----	534	455	344	75.6	111	79	22.8	23.7	18.7
1992-----	549	467	346	73.9	122	82	22.8	23.6	18.8
1993-----	543	461	340	73.7	121	82	22.9	23.8	18.8
1994-----	554	469	341	72.8	128	85	22.9	23.7	18.9
1995-----	548	462	331	71.7	131	86	23.0	23.8	19.0
1996-----	555	467	332	71.0	135	88	23.4	24.3	19.1
1997-----	571	476	327	68.7	149	95	23.3	24.2	19.2
1998-----	582	480	319	66.5	161	101	23.3	24.2	19.2
1999-----	592	488	324	66.4	164	103	23.3	24.1	19.3
2000-----	600	489	312	63.7	178	110	23.3	24.1	19.4
2001-----	596	477	289	60.5	189	118	22.7	23.5	19.5
2002-----	600	481	290	60.4	190	120	22.7	23.5	19.5
2003-----	605	484	292	60.4	192	121	22.7	23.5	19.6
2004-----	610	487	294	60.3	193	123	22.7	23.5	19.6
2005-----	615	490	296	60.3	195	124	22.7	23.5	19.7
2006-----	608	481	292	60.7	189	126	22.1	22.8	19.7
2007-----	612	485	294	60.6	191	128	22.1	22.8	19.8
2008-----	617	488	296	60.6	192	129	22.1	22.8	19.8
2009-----	622	491	297	60.5	194	131	22.1	22.8	19.9
2010-----	627	494	299	60.5	195	132	22.1	22.8	19.9
2011-----	609	481	302	62.9	179	128	22.3	23.1	19.9
2012-----	613	484	304	62.8	180	129	22.3	23.1	20.0
2013-----	617	487	306	62.8	181	131	22.3	23.1	20.0
2014-----	621	489	307	62.7	182	132	22.3	23.1	20.1
2015-----	625	492	309	62.7	184	133	22.4	23.1	20.1
2016-----	570	445	282	63.4	163	124	21.6	22.3	20.1
2017-----	573	447	283	63.3	164	125	21.6	22.3	20.1
2018-----	576	450	285	63.3	165	126	21.6	22.3	20.2
2019-----	579	452	286	63.3	166	127	21.6	22.3	20.2
2020-----	582	454	287	63.2	167	128	21.6	22.3	20.2

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