Demographic Influences on Household Growth and Housing Activity

By Glenn H. Miller, Jr.

The pace of home building in the United States during the 1980s differs sharply from that of the previous three decades. From 1950 to 1980, residential construction activity was a booming sector of the U.S. economy. In the 1980s, however, housing activity slowed considerably and its importance in the economy diminished. In light of this recent experience, an important economic question emerges: Will the slower growth of the 1980s continue in the years ahead, will it stabilize, or will the growth in housing regain the strength that it enjoyed during the earlier postwar years?

Many economic factors affect the growth of housing. Over the longer run, one of the most important of these factors is demographics—influences such as population growth, changes in the age structure, and changes in the rates of household incidence. These demographic influences—through their impact on household growth—played a key role in the strength of the housing industry from 1950 to 1980 and in the slowdown of the 1980s.

This article examines the past and future impact of demographic factors on the growth in the number of households and on housing activity in the United States. The article concludes that a projected further slowing of household growth through the end of the century is likely to be accompanied by further reduced growth in residential construction activity.

The article's first section discusses the determinants of household growth and its role in residential construction activity. The section also describes a framework for understanding how demographic factors combine to affect household growth. The following two sections use the framework to explain the accelerating growth in the number of households from 1950 to 1980 and the slower growth in the 1980s. The final two sections discuss the projection of increases in the number of households and their expected effect on future residential construction activity.

Glenn H. Miller, Jr., is vice president and economic adviser at the Federal Reserve Bank of Kansas City. Michael Grace, an assistant economist at the bank, assisted in preparation of the article.

TABLE 1
Number of households and residential construction activity, 1950-85
(Annual averages)

	Increase in the number of households	Residential investment	Private housing starts	Private housing starts plus mobile homes
	(thousands)	(bil. of 1982 $)	(thousands of units)	
1950-55	864	78.0	1,485	—
1955-60	985	87.6	1,317	—
1960-65	927	107.8	1,476	1,629
1965-70	1,193	108.9	1,373	1,691
1970-75	1,544	143.3	1,790	2,227
1975-80	1,931	158.9	1,716	1,976
1980-85	1,203	145.3	1,468	1,739

Sources: U.S. Bureau of the Census and U.S. Department of Commerce

Determinants of growth in the number of households

In the longer run, there is a demographic foundation for residential construction activity.[1] The pace of housing construction reflects growth in the number of households, because most new housing units are built to accommodate additional households, either directly or indirectly.[2] The growth in the number of households and the pace of residential construction activity shared a common pattern from 1950 to 1985, reaching their peaks in the 1970s, then declining in the 1980s (Table 1). Average annual increases in the total number of households reached a peak in the last half of the 1970s, as did annual averages for real residential investment (Chart 1).[3]

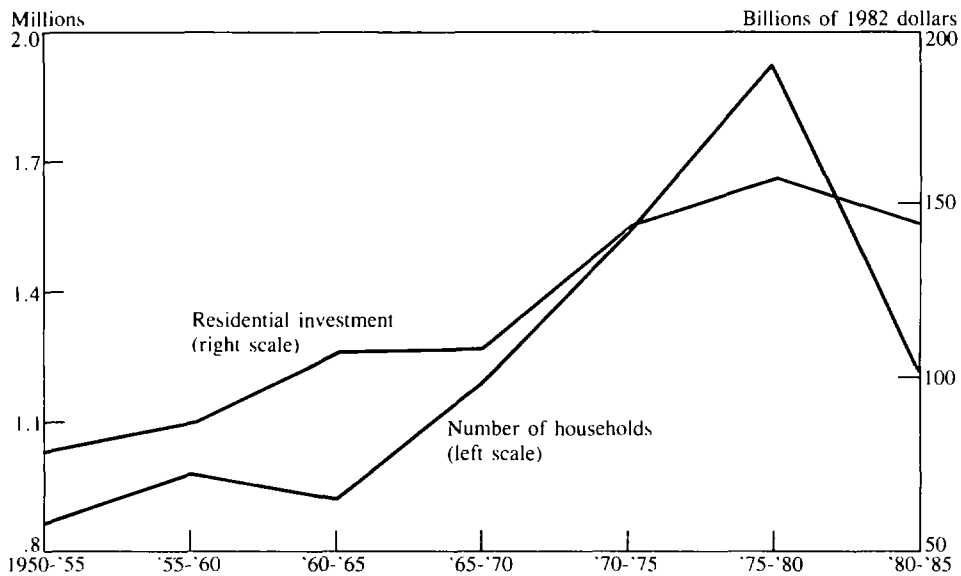
[1] Residential construction is subject to both short-run and longer run influences. Short-run movements in housing activity are usually caused by changes in financial variables, especially the availability and cost of home mortgage credit. Other financial factors include the cost and availability of funds to thrift institutions and of construction loans to home builders. Other economic factors can also influence short-run housing sector activity. These factors include construction costs, house prices, and the incomes and net worths of the households that occupy houses. Tax policy can also play an important role in the short-run effects on construction activity.

[2] Stuart A. Gabriel, "Housing and Mortgage Markets: The Post-1982 Expansion," *Federal Reserve Bulletin*, December 1987, p. 897.

[3] Other measures of housing activity behaved similarly. Total private housing starts, as well as starts plus mobile home shipments, peaked in the early 1970s and remained strong in the last half of the decade. As Table 1 shows, the increase in the number of households in a given period generally differs from the number of units built. According to the U.S. Bureau of the Census, "The number of housing units constructed [differs] from the increase in the number of households because of changes in the number of vacant units, the demolition of existing units, and conversions or mergers of units in existing structures." U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 986, *Projections of the Number of Households and Families: 1986 to 2000*, Washington, D.C., 1986, p. 1. Housing activity not directly arising from growth in the number of households would include, for example, construction of second homes and of units built to accommodate internal migration.

CHART 1

Residential investment and increase in the number of households, 1950-85
(annual averages)



Source: Table 1

Demographic factors affect housing sector activity primarily through growth in the number of households. A household is defined as a person or group of persons occupying a housing unit, one of whom is identified as the householder.

Household growth is determined by population growth, the age structure of the population, and rates of household incidence. The age structure of the population is the distribution of the total population among various age groups. The rate of household incidence for any age group is the proportion of the population in that age group who are heads of households. For example, if there are 400 households for every 1,000 persons in a given age group, the household incidence rate for that age group is .400.

Household incidence rates are not just mechanical ratios, but result from the decisions and actions of persons. Household formation decisions depend on personal preferences and circumstances, and are often related to other decisions involving things like labor force participation and marital status.[4]

Households come into existence through the act of household formation: One or more persons establish separate living quarters by occupying a housing unit, which may be a house, an apartment, or a single room. The decisions and actions leading to household formation generally follow a life cycle. Children become young adults, leave their parents' homes, and set up their own households, thus requiring additional housing units.

[4] Louise B. Russell, *The Baby Boom Generation and the Economy*, Washington, D.C., The Brookings Institution, 1982, p. 109.

They may do so as single persons who establish nonfamily households, or upon marriage when they establish family households.[5] After their children leave, parents remain a family household. Or because of death or divorce, one or both may return to living alone as nonfamily households.

If the patterns of decisions and actions remain about the same from generation to generation, then household incidence rates do not change much, and growth in the number of households is dominated by population growth and its age structure. But changes in decisions and actions relating to household formation can make changing household incidence rates a significant contributor to household growth.

A simple framework helps show how population growth, changes in the age structure, and changes in rates of household incidence contribute to growth in the number of households. The total number of households, H, is composed of the number of households in various age groups. If there are two age groups, H_1 and H_2, then $H = H_1 + H_2$. The number of households in a particular age group, H_1, depends on the population in that age group, P_1, and the rate of household incidence for that age group, h_1. Thus, the total number of households at any given time can be written

$$H = P_1 h_1 + P_2 h_2.$$

The formula clearly shows that an increase or decrease in the number of households will occur if there is an increase or decrease in population, or if there is an increase or decrease in the household incidence rates. The number of households can also change if there is a change in the age structure of the population. To see this, suppose that the rates of household incidence are different for the two age groups ($h_2 > h_1$) and that neither h_2 nor h_1 changes from period one to period two. Suppose also that the total population remains unchanged from the first to the second period. Finally, suppose that the age structure of the population changes such that the P_2 share of the total population increases, while the P_1 share declines. Because h_2 exceeds h_1, this change in the age structure will cause the number of households to increase.

Changes in total population, population age structure, and household incidence rates may be reinforcing or offsetting. An illustration of combined effects is one in which total population increases, the age structure changes in such a way that growth is greater in age groups with higher incidence rates, and household incidence rates generally rise. These changes are reinforcing in the sense that all contribute toward increasing the growth in the number of households.

Growth in the number of households, 1950 to 1980

The rate of growth in the number of households increased from just under 2 percent per year in the 1950s to about 2.6 percent per year from 1975 to 1980 (Table 2). Throughout the period, the rate of growth in the number of households exceeded the rate of population growth. The average rate of total population growth declined from about 1.8 percent per year in the 1950s to about 1.1 percent per year in the period from 1975 to 1980 (Table 3). The divergence between population growth and growth in the number of households was especially large after 1965 (Chart 2).

[5] A family household is a household maintained by a family of two or more persons related by birth, marriage, or adoption, and any unrelated persons. Nonfamily households consist of a person living alone or householders living with persons to whom they are not related. About nine-tenths of all nonfamily households are one-person households.

TABLE 2

Average annual increase in the number of households by type, 1950-87

	Percent			Number of households (in thousands)		
	Total	Family	Nonfamily	Total	Family	Nonfamily
1950-55	1.91	1.45	5.50	864	579	285
1955-60	1.98	1.48	5.19	985	635	350
1960-65	1.70	1.27	4.04	927	587	340
1965-70	2.00	1.47	4.49	1,193	724	469
1970-75	2.33	1.55	5.44	1,544	821	723
1975-80	2.59	1.40	6.42	1,931	797	1,134
1980-87	1.47	1.14	2.37	1,243	706	537

Source: U.S. Bureau of the Census

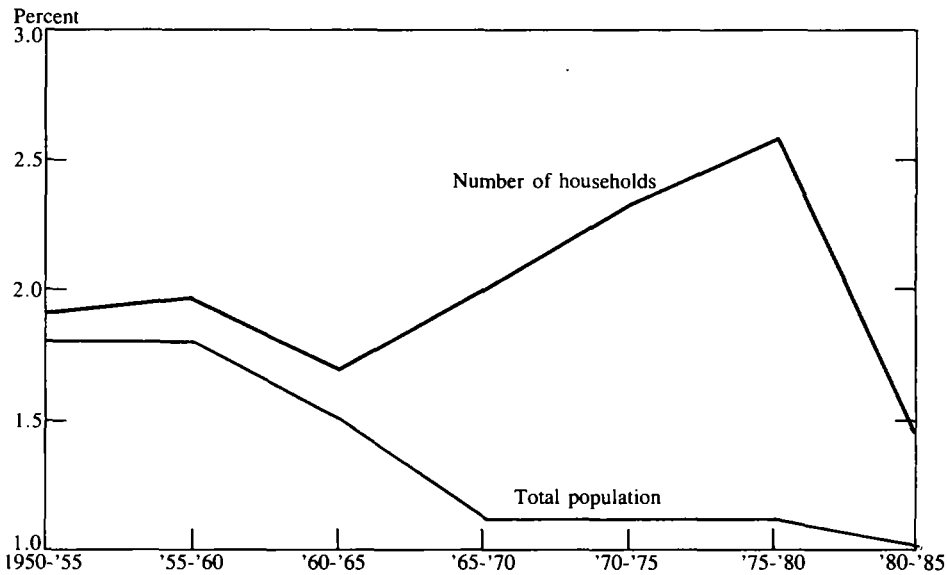
TABLE 3

Estimated and projected average annual percent change in population, by age, 1950-2000

	Age (years)					
	18-24	25-34	35-44	45-64	65 and over	Total
Estimated						
1950-55	−1.4	0.2	1.2	1.7	3.4	1.8
1955-60	1.6	−1.1	1.1	1.6	3.0	1.8
1960-65	5.2	−0.4	0.2	1.5	2.1	1.5
1965-70	4.4	2.5	−1.1	1.6	1.8	1.1
1970-75	2.7	4.9	−0.3	0.9	2.6	1.1
1975-80	1.7	3.9	2.7	0.3	2.7	1.1
1980-85	−1.1	2.5	4.6	0.2	2.2	1.0
Projected						
1985-90	−2.1	0.8	3.7	0.7	2.2	0.9
1990-95	−1.6	−1.4	2.2	2.5	1.4	0.8
1995-2000	0.7	−2.0	0.8	3.3	0.6	0.7

Source: U.S. Bureau of the Census

CHART 2
Total population and number of households, 1950-87
(average annual percent increases)



Source: Tables 2 and 3

Age structure and growth in the number of households

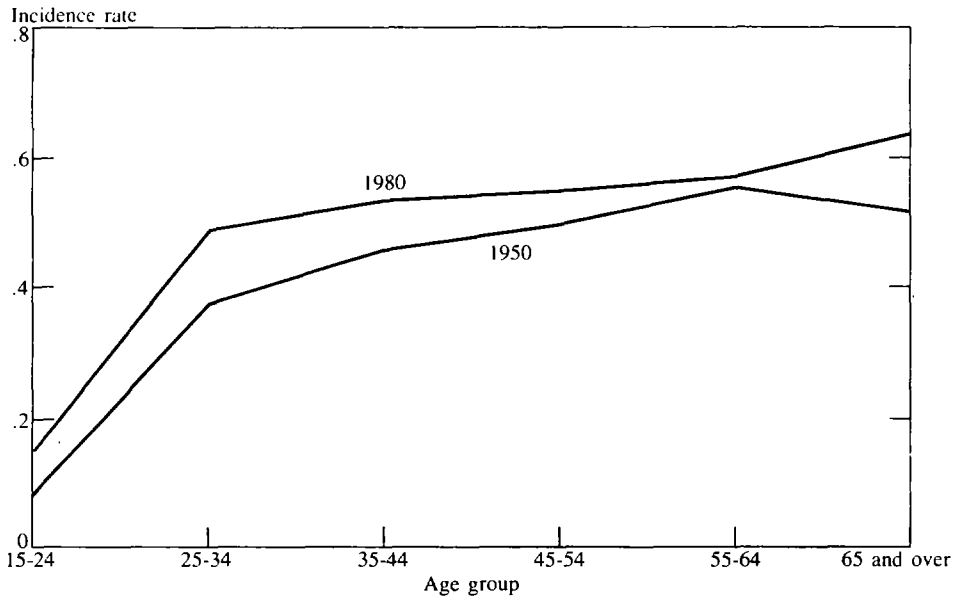
Faster growth in the number of households than in population stemmed largely from the changing age structure of the population, as changes in the age structure boosted household growth. The maturing of the baby-boom generation into age groups where household formation is more likely, and the relatively rapid growth of the population's oldest age group as life spans lengthened, each contributed to the age structure changes that increased growth in the number of households.

The coming of the baby-boom generation, those persons born in the years 1946 through 1964, first increased the rate of population growth. Later, the baby boomers—a cohort both preceded and followed by smaller cohorts—became a major direct influence on the growth in the number of households.[6] As the baby boomers grew older, they moved into age groups where rates of household incidence are typically higher. The rate of household incidence for persons age 25-to-34 years is substantially higher than for those age 15-to-24, and the rate then rises more slowly through the rest of the age range (Chart 3).

Table 3 shows the inexorable progression of the baby-boom bulge through the population age structure. In the 1960s, the highest rates of population growth were in the 18-to-24 age group.

[6] The impact of the baby-boom generation on the U.S. economy and society has been, and is likely to continue to be, studied extensively. For a study of the importance of the baby-boom generation for the economy, see Louise B. Russell, *The Baby Boom Generation and the Economy.*

CHART 3
Household incidence rates by age group, 1950 and 1980



Source: Table 4

As the baby boomers matured, the 25-to-34 age group had the highest rate of growth in the 1970s. Population growth in each of these age groups first accelerated, then continued at much slower rates, or even declined, as the baby-boom generation moved through the age structure.

The rapid growth in the 1960s of the youngest age group initiated the significant contribution of the baby boomers to household growth. But the contribution was dampened because that age group's household incidence rate is the lowest in the adult population. As the large cohort of baby boomers moved from the youngest age group to the next older group, with its much higher incidence rate, the number of households increased sharply. Thus, the increase in the number of households with heads 25-to-34 years old due to their population growth alone was large in the last half of the 1960s and very large in the 1970s.

A second powerful factor joined the maturing of the baby boomers in changing the age structure —the fall in the death rate and the resulting longer life spans for older people.[7] Apart from the large age-specific percent increases produced as the baby boomers moved through the age structure, the largest average annual percent increases from 1950 to 1980 were for people age 65-and-over (Table 3). Because this age group had the highest rates of household incidence of any age group, the large increases in the population age 65-and-older contributed significantly to total growth in the number of households.

[7] Russell, p. 9.

TABLE 4
Rates of household incidence, by age group, 1950-87

Age	1950	1955	1960	1965	1970	1975	1980	1987
15-24	.095	.099	.104	.111	.119	.143	.154	.135
25-34	.373	.384	.424	.442	.462	.475	.492	.471
35-44	.453	.480	.480	.491	.510	.520	.540	.544
45-54	.500	.507	.529	.528	.524	.544	.556	.567
55-64	.559	.542	.550	.562	.579	.564	.576	.584
65 & over	.521	.544	.565	.594	.622	.628	.644	.637

Source: Calculations based on U.S. Bureau of the Census data

Incidence rates and growth in the number of households

The effects of changing age structure do not account for all of the increase in the number of households in the postwar period. Rising rates of household incidence also made a significant contribution, as changes occurred in decisions and actions affecting household formation. In the 1950s, marriage and childbearing occurred at earlier ages than before the war. But after the 1950s, trends toward delayed marriages and childbearing, more divorces, and more one-person households especially in the youngest and oldest age groups, all tended to increase household incidence rates.[8]

With few exceptions, rates of household incidence increased steadily from 1950 to 1980 for all age groups in the adult population (Table 4). Increases in household incidence were greatest in the youngest and the oldest age groups, thereby reinforcing the influence of changes in the population age structure.[9] Rising incidence rates brought faster growth in the number of households in every age group than can be explained by growth in population by age group.

To determine how much each of the demographic influences contributes to total household growth, Burnham Campbell developed a method to separate these influences. Campbell's method calculates the contribution to household growth made during any period by population growth and changes in the age structure, on the one hand, and changes in incidence rates, on the other hand.[10] In his analysis, the increase in the number of households in a given age group and over a given period that is solely attributable to the change in the size of the age group is called

[8] Russell, p. 111.

[9] Russell, pp. 92-93, 168.

[10] Burnham O. Campbell, *Population Change and Building Cycles*, Urbana, Ill., Bureau of Economic and Business Research, 1966, especially Chapter 3. The methodology is also used in Russell, especially pp. 102-110.

"required additions." Required additions are calculated assuming that the incidence rate remains unchanged during the period. Thus required additions reflect the change in the number of households that would have occurred if the age group's population had changed as it did, but without a change in its incidence rate. To obtain the contribution made by a change in the incidence rate, required additions are subtracted from the actual change that occurred in the number of households in the age group, referred to as "actual additions." Summing over all age groups gives the actual additions, required additions, and additions due to changes in incidence for the total population.[11]

In each period from 1950 to 1980, the total growth in the number of households, or actual additions, was greater than the increase in the number of households attributable to population growth and age structure alone, or required additions (Table 5). These estimates show the consistently important contribution of rising rates of household incidence. In every period, increased rates of household incidence were responsible for one-fourth or more of the total increase in the number of households. At the same time, the sharp increases in the number of required additions after 1965 show the substantial impact on the total growth in the number of households due to the changing age structure of the population.

The importance of the oldest and youngest age groups for growth in the number of households is clearly evident from Table 6. This table also shows the separate contributions of changing household incidence and of population growth by age group.[12]

TABLE 5
Average annual additions to the number of households, 1950-87
(in thousands)

	Actual additions	Required additions	Additions due to changing household incidence
1950-55	864	625	239
1955-60	985	593	392
1960-65	927	601	326
1965-70	1,194	763	431
1970-75	1,543	1,037	506
1975-80	1,931	1,418	513
1980-87	1,243	1,420	−177

Source: Calculations based on U.S. Bureau of the Census data

Persons age 65-and-older contributed substantially to household growth from 1950 to 1980. The significant increase in the population age 65-and-older resulted in large increases in required additions for this age group, which had the highest of all incidence rates in any given year after 1950. At the same time, the increases in this group's incidence rate throughout the period reinforced its contribution to the total increase in the number of households.

The baby boomers' contribution to household growth is evident, too, as actual additions in the age group 25-to-34 years were extremely large from 1965 to 1980. The large numbers of required additions show the impact of the age structure change due to the maturing of the baby boomers into the 25-to-34 age group. Again, as was true for the oldest age group, the increases in required additions were reinforced by increases due to further rises in the household incidence rate for persons age 25-to-34 years.

Much of the rising rate of household incidence

[11] Russell, p. 105.

[12] Tables 5 and 6 differ from Tables 5-4 and 5-5 in Russell because of the use of data not available at the time of her study.

TABLE 6
Additions to the number of households, by age group, 1950-80
(in thousands)

Age	1950-55	1955-60	1960-65	1965-70	1970-75	1975-80	Type of addition
15-24	36	410	854	946	1,475	735	Actual
	−56	288	644	640	509	276	Required
	92	122	210	306	966	459	Incidence
25-34	374	392	203	1,767	3,253	3,557	Actual
	92	−524	−192	1,263	2,840	2,924	Required
	282	916	395	504	413	633	Incidence
35-44	1,195	609	395	−199	51	2,119	Actual
	578	628	108	−637	−163	1,579	Required
	617	−19	287	438	214	540	Incidence
45-54	844	1,307	645	693	700	−262	Actual
	716	858	667	780	230	−545	Required
	128	449	−22	−87	470	283	Incidence
55-64	427	680	1,001	1,224	477	1,224	Actual
	685	544	799	902	789	968	Required
	−258	136	202	322	−312	256	Incidence
65 & over	1,442	1,527	1,538	1,537	1,760	2,284	Actual
	1,109	1,170	1,003	984	1,610	1,889	Required
	333	357	535	553	150	395	Incidence
Total	4,320	4,925	4,637	5,965	7,719	9,656	Actual
	3,124	2,964	3,029	3,932	5,815	7,091	Required
	1,196	1,961	1,608	2,033	1,904	2,565	Incidence

Source: Calculations based on U.S. Bureau of the Census data

in nearly all age groups from 1950 to 1980 was due to decisions and actions leading to rapid growth in the number of nonfamily households, most of which are one-person households. The annual rate of growth in the number of nonfamily households was much greater than the rate of growth for family households in each five-year period (Table 2). Over the three decades, the rate of family household growth averaged about one and a half percent per year, while nonfamily household growth averaged just over 5 percent per year. The rate of growth in the number of persons living alone was even higher—about 6 percent per year over the whole period.

The wide variation between the growth rates for family and nonfamily households substantially changed the composition of the total number of households. The total number of households in the United States nearly doubled from 43.6 million in 1950 to 80.8 million in 1980. In 1950, 89 percent of all households were identified as family households. By 1980, only 74 percent of all households were family households. Over the period, nonfamily households increased from 11 percent to 26 percent of the total, and persons living alone increased from 9 percent to 23 percent of all households. These increases reflect the trends toward later marriage, more divorces, and more older people living alone, which accounted for rising rates of household incidence.

Growth in the number of households in the 1980s

Growth in the number of households in the 1980s has differed sharply from that earlier in the postwar period, as annual percent increases in total households were considerably smaller in the 1980s (Table 2). The slowing was apparent for both family and nonfamily households, with a greater reduction in the rate of nonfamily household growth.

The slower household growth was due both to changes in the age structure of the population and to changes in rates of household incidence. While total population growth slowed only slightly in the 1980s, growth in the number of persons in the youngest age groups slowed considerably as the baby-boom generation continued to mature and was followed through the age structure by a smaller cohort (Table 3). Further, growth in the number of persons age 65-and-over in the 1980s has slowed somewhat compared with the 1970s. Rates of household incidence declined from 1980 to 1987 in the age groups 15-to-34 years and 65 years and over. Household incidence rates were higher in 1987 than in 1980 only for persons of ages 35 through 64, and only slightly higher for them (Table 4).

Estimates of how much of the slowing in household growth in the 1980s is due to changes in the age structure of the population and how much is due to changes in rates of household incidence are shown in Table 7. In contrast to the 1950-80 period, changes in household incidence rates in the 1980s acted to reduce the overall growth in the number of households rather than to add to it. If the population changes of the 1980s had been associated with the 1980 rates of household incidence, the number of households would have grown by about 9.9 million. But falling rates of household incidence made the actual increase in the number of households about 1.2 million less than that expected from population change alone.

The 1980-to-1987 experience was vastly different from earlier postwar years. For the six five-year periods from 1950 to 1980, required additions to households were never larger than actual additions in total, and almost never larger for any single age group. These patterns were clearly and sharply reversed in the 1980-to-1987 period. Where the youngest and oldest age groups had earlier been major contributors to total growth in the number of households, in the 1980s they were not. Falling rates of household incidence for those age 65-and-over and those age 34-and-under brought actual additions below required additions in those age groups. In the youngest age group, a fall in the rate of household incidence combined with a decline in population to produce a 21 percent drop in the number of households for that group. These changes more than offset the effect of slightly rising incidence rates in other age groups and brought total actual additions below total required additions. In the 1980s, age structure changes were no longer being reinforced by rising incidence rates, but were being offset by falling ones due to changing preferences, decisions, and actions relating to household formation.

TABLE 7
Additions to the number of households, by age group, 1980-87
(in thousands)

Age	Actual additions	Required additions	Additions due to changing household incidence	Addendum: Population change
15-24	−1,372	−656	−716	−4,262
25-34	1,998	2,898	−900	5,891
35-44	4,724	4,596	128	8,512
45-54	557	295	262	530
55-64	343	149	194	258
65 and over	2,454	2,660	−206	4,131
Total	8,704	9,942	−1,238	15,060
Annual Average	1,243	1,420	−117	2,151

Source: Calculations based on U.S. Bureau of the Census data

Projected growth in the number of households

The U.S. Bureau of the Census projects total population growth for the 1985-to-2000 period to be less rapid than it was earlier in the post-World War II period (Table 3).[13] As was true in earlier decades, however, growth in the number of households to the end of the century will depend on changes in age structure and rates of household incidence as well as on population growth.

Age structure changes

The age structure of the population in the years ahead will continue to be influenced strongly by the aging of the baby-boom generation and the maturing of the smaller cohort that follows it. As the baby-boom generation moved through the age structure in the postwar years, sharply increased rates of growth have been followed by slowing growth for the two youngest age groups (Table 3). Population declined in the 18-to-24 age group in the early 1980s, and projections show further decline until 1995 followed by only slow growth in the last half of the 1990s. The same pattern is projected for the 25-to-34 age group, but with a decade lag. Population in the two youngest age groups together is projected to decline by well over nine million persons, or about 13 percent, from 1985 to 2000.

Population growth in other age groups is not expected to pick up the slack. Slowing growth is projected for those persons age 35-to-44 years, with only very slow growth expected in the late 1990s. And the growth in the population age 65-and-over, whose contribution ranked close to that of the baby boomers in influencing earlier

[13] The U.S. Bureau of the Census projections of growth in the number of households discussed in this article are based on a "middle" population projections series prepared by the Bureau.

changes in the age structure of the population, is projected to slow steadily to the close of this century. With population in all age groups (except those age 45-to-64) declining or growing at much slower rates, this demographic support for growth in the number of households has weakened and will continue to weaken to the end of the century.

Incidence assumptions

Assumptions about future rates of household incidence are a key ingredient in projections of the number of households. Population growth by age group can be projected to the end of the century with some confidence, because those persons who will be 15 or older by the year 2000 have already been born, and mortality rates change slowly. Preferences, decisions, and actions affecting household formation shift more readily, however, with important effects on rates of household incidence and thus on the increase in the number of households.

In making the assumptions used in its projections of the number of households to the year 2000, the Census Bureau identified several demographic factors that have influenced past trends in household growth. The share of young adults maintaining their own households has increased and the share of young and middle-aged adults living in married-couple households has declined, because of increases in the proportion of persons who have never married or who were married and then divorced. In addition, changes in the age structure of the population tended to strengthen the effects of marriage and divorce on changes in household formation, as the baby boomers moved into the age groups where marriages were postponed and divorces more likely. Finally, the proportion of older persons maintaining their own households has increased. These factors, which are reflected in changing rates of household incidence, contributed to the earlier postwar acceleration in household growth.

More recently, however, some modifications of these trends have been occurring. The proportion of young adult men never married has been rising more slowly. There has been an increasing tendency for young adults to continue to live in their parents' homes. The divorce rate has fallen. And, the aging of the baby-boom generation brings its members into age groups where marriage is more widespread and divorce is less likely. Continuing moderation in rates of change in marriage, divorce, and living arrangements, due to the modifications just discussed, suggests a slower rate of growth in the number of households in the future.[14]

Projections of the number of households

The Bureau of the Census projects slower growth in the number of households to the end of the century than occurred in earlier decades.[15] Average annual increases shown in Table 8 exhibit the slower projected growth, compared with the earlier growth shown in Table 2.

Each of the Bureau of Census projections series takes account of age structure changes while reflecting different demographic assumptions affecting rates of household incidence. Projections Series I reflects "the demographic assumption that the era of rapid change in marriage and divorce may have come to an end, and conse-

[14] U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 986, *Projections of the Number of Households and Families: 1986 to 2000,* Washington, D.C., 1986, p. 5.

[15] The projected increases in the number of households were designed to be plausible, yet only illustrative of long-run changes. The projections form smooth trends but actual future changes are unlikely to be smooth "because of short-term fluctuations due to various social and economic factors." The projections assume the absence of major catastrophes such as general war, and of large unexpected changes in underlying demographic trends. *Projections of the Number of Households and Families: 1986 to 2000,* p. 5.

TABLE 8
Projected average annual increase in the number of households, 1985-2000

	Percent		Number of households (in thousands)	
	Series I	Series II	Series I	Series II
1985-90	1.41	1.62	1,230	1,416
1990-95	1.05	1.29	977	1,216
1995-2000	0.87	1.12	852	1,125

Source: U.S. Bureau of the Census

quently, that householder proportions will remain constant'' at their 1985 levels.[16] With the rates of household incidence in effect at the beginning of the projections period kept unchanged, Series I reflects the results of projected change in population age structure alone and is essentially equivalent to projections of required additions. Projections Series II assumes further changes in household incidence after 1985, due to continued moderation of underlying trends in marriage and divorce.[17]

Series I, which holds incidence rates constant at 1985 levels, projects required additions that are small compared with the actual additions of earlier decades. Annual percent increases for five-year periods are below any experienced in the 1950-to-1985 period, and the increase in the number of households projected for the last half of the 1990s is below that of any earlier five-year period shown in Table 2. Thus, if growth in the total number of households is not to slow drastically, rates of household incidence must make some contribution.

The Series II projections show the results when changing household incidence rates contribute to increases in the number of households. With its assumption of moderate changes in factors affecting household incidence, Series II shows faster growth in the number of households than does Series I. But even with this contribution, household growth to the century's end is still slower than for most of the postwar period. Moreover, the projected increase in the number of households in the 1990s is also very small in Series II, well below that of the 1960s and 1970s.

Growth in the number of households is thus projected to be substantially less to the year 2000 than that experienced earlier. Indeed, even slower future growth could result if changes in household incidence were to have a negative influence on the increase in the number of households, such as occurred from 1980 to 1987.

16 *Projections of the Number of Households and Families: 1986 to 2000,* p. 5.

17 The U.S. Bureau of the Census produced three different projections of household growth, called Series A, B, and C. Series B and C are discussed in this article as Series II and I, respectively. While Series C assumes unchanged incidence rates, Series A and B both assume further changes in incidence rates. Series B, which assumes greater moderation of earlier trends in incidence rates, produces projections of slower household growth than does Series A. At the time of their publication, the U.S. Bureau of the Census judged Series B to be the most plausible set of projections. Because of that judgment, and in light of the slowing of household growth in the 1980s, Series A is not discussed here.

Implications for residential construction activity

An important result of the projected slowing of growth in the number of households is slower growth to the end of the century in residential construction activity, compared with earlier postwar growth. While forecasts of the number of housing units produced or of the amount of residential investment cannot be made from household growth projections alone, the influence of other factors would have to be substantial to offset the effect of significantly slower growth in the number of households.

One way to look at the possible impact of slower household growth and hence of reduced residential construction activity is within a projection of total economic activity. A Bureau of Labor Statistics (BLS) projection of the U.S. economy in 2000 estimates real GNP growth from 1986 to 2000 at about the average rate of the previous 15 years.[18] This projection incorporates a substantial slowing in residential construction activity and suggests some shifting of gross private domestic investment from the residential to the nonresidential component.[19]

Within this BLS projection, real residential investment is projected to grow at 0.4 percent per year for the rest of the century, well under the 1.3 percent annual average growth from 1972 to 1986. Residential investment in 2000 would be 3.9 percent of total real GNP, compared with 5.3 percent in 1986 and 6.2 percent in 1972. The projected slowdown in residential construction growth is due to both cyclical and demographic factors. With regard to demographic factors, the BLS says that "the formation of new households is projected to slow dramatically during the 1990s, pulling down the level of housing starts over the projection period."[20] Moreover, the BLS mid-range projections presented here are based on assumed growth in the number of households faster than that in either of the projections series discussed earlier. Unless offset from other sources, additional weakness in its demographic foundation might further reduce housing activity.

Summary

While residential construction is affected by a number of factors, the relationship between growth in the number of households and residential construction activity is an important one. Growth in the number of households is the fundamental support underlying growth in housing construction over the longer run. Household growth has slowed in the 1980s from earlier post-World War II decades, and projections to the year 2000 by the Bureau of the Census show further slowing. The slower growth in the number of households will almost surely be reflected in residential construction activity. Thus, projected slower growth to the end of the century in the number of households suggests slower growth in residential construction, leading possibly to slower total economic growth or to a change in the composition of output.

[18] Norman C. Saunders, "Economic Projections to the Year 2000," *Monthly Labor Review*, September 1987, pp. 10-18. This article's discussion is based on the BLS mid-range projection.

[19] Such a shifting might be welcomed by some observers, as a number of analysts have argued that too many resources have gone into residential investment at the expense of other fixed capital investment in the United States. For example, see Edwin S. Mills, "Has the United States Overinvested in Housing?" *Journal of American Real Estate and Urban Economics Association*, Vol. 15, No. 1, Spring 1987, pp. 601-616.

[20] Saunders, pp. 14-15.