

THE DEMOGRAPHIC FACTOR  
IN HOUSEHOLD GROWTH

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## Introduction

The decade of the 1970s witnessed an unusually rapid growth in the number of households and a marked shift in household composition. Between 1970 and 1980, 16.8 million households were added to the stock, compared with net additions of about 10.6 million in each of the previous two decades. With the "arrival" of the baby-boom generation into the prime household formation age groups, the strong growth in the number of households was entirely expected; the large swing in growth rates and in the distribution of household types, however, were not. This paper thus analyzes the causes of the instability in household growth over the past decade, examines regional variations in these trends, and provides alternative projections of the number of households that will likely form in the 1980s.

### National Trends: 1950-1980

It was clear in the late 1960s that the aging of the baby-boom generation (cohorts born between 1945 and 1962) would mean significant growth in the number of households. In the early 1970s, the U.S. Bureau of the Census estimated that between 1.3 and 1.4 million new households would form over the decade, an increase of 30 to 40 percent over growth in the previous 10 years.<sup>1</sup> What forecasters failed to anticipate, however, was that the fraction of unmarried adults who head their own households would also rise dramatically. When the trend toward rising headship rates had become obvious in 1975, the Census Bureau issued a new set of projections, with the "medium" assumptions implying a growth of about 1.5 million new households per

year for the remainder of the 1970s.<sup>2</sup> In 1979, the Bureau again revised its medium forecast of household growth for the 1980s to 1.6-1.7 million annually.<sup>3</sup>

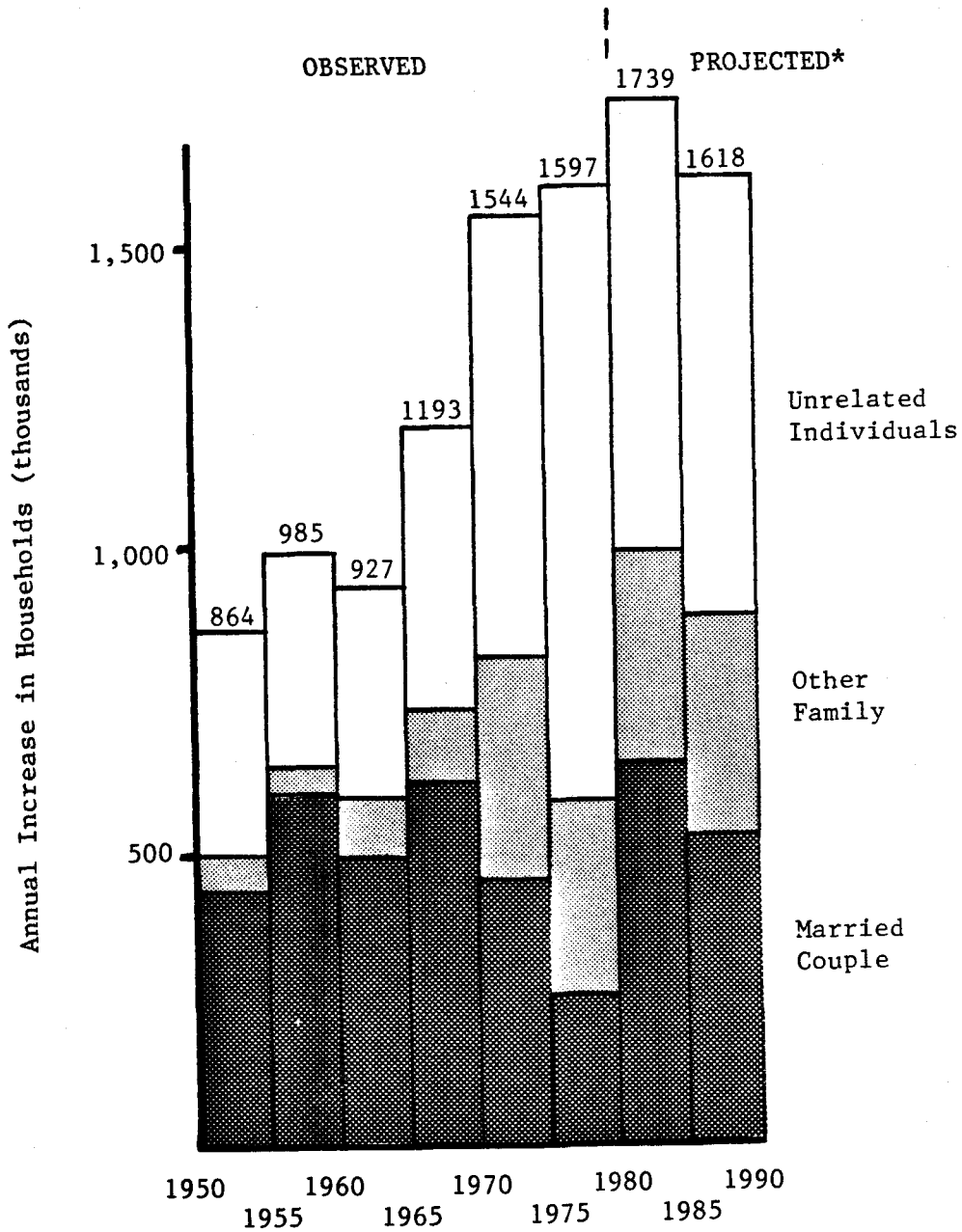
As Figure 1 illustrates, if the trend toward rising headship were to persist, household growth in the 1980s would thus surpass even that in the 1970s. Indeed, some forecasters have predicted an increase of 2.0 million or more new households annually over the current decade. But how justified are these projections of household formation rates?

A good place to begin answering this question is to identify the growth in four specific household types: those headed by married couples, by individuals who live alone, by unmarried women that contain two or more people, and by unmarried men that contain at least one other member. The statistics in Table 1 show that married couples headed almost 80 percent of all households in 1950 and almost 65 percent of new households added over the decade. Since 1960, however, the share of household growth that married-couple heads account for has fallen precipitously: by the 1970s, the decade of largest total household growth in history, married couples headed only 28 percent of new households while single persons headed 42 percent. Husband-wife households thus increased only 10.5 percent over the 1970s, while single-person households grew at 63.5 percent.

The distributions of household types shown in Figure 2 reaffirm these trends. By 1980, married couples accounted for only 60 percent of all households, and their share has continued to fall rapidly. The Census Bureau nonetheless projects a resurgence in married couple households during the 1980s, a clear break from the trends of the late 1960s and 1970s.

FIGURE 1

Annual Increase in Number of Households by Type:  
1950-1980 Observed and 1980-1990 Projected



\*Census Bureau Series B.

Sources: Current Population Reports, Series P-20, Nos. 345 and 366; Series P-25, No. 805.

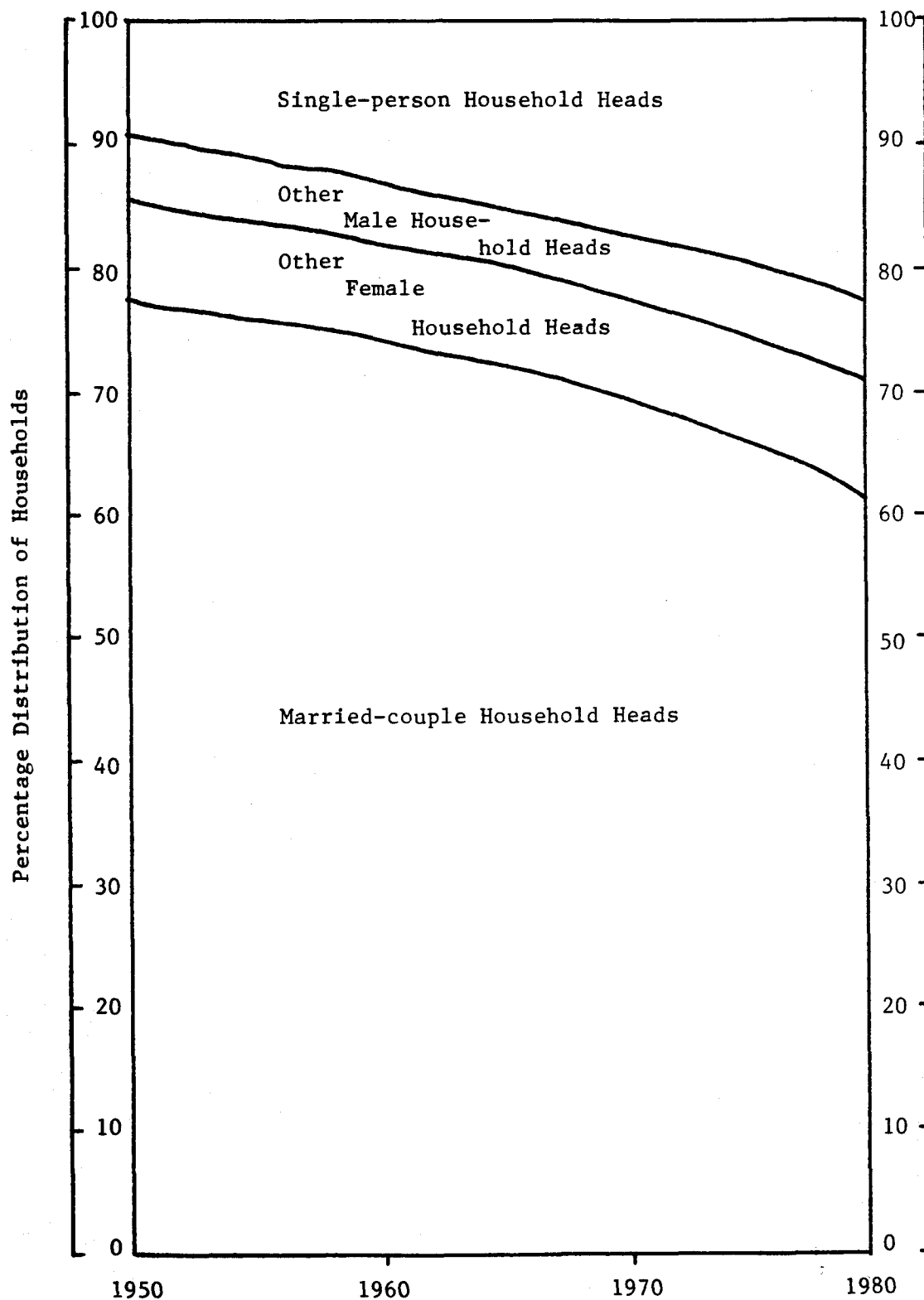
TABLE 1  
Households by Type, 1950 to 1980

	Number of Households				Change Over Decade		
	1950	1960	1970	1980	1950-60	1960-70	1970-80
TOTAL HOUSEHOLDS	42,394	53,024	63,638	80,434	10,630	10,614	16,796
Percent of Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MARRIED COUPLE							
HOUSEHOLDS	32,805	39,602	44,003	48,642	6,797	4,401	4,639
Percent of Total	77.4	74.7	69.1	60.5	63.8	41.5	27.6
SINGLE PERSON							
HOUSEHOLDS	3,971	7,065	11,146	18,222	3,094	4,081	7,076
Percent of Total	9.4	13.3	17.5	22.7	29.0	38.4	42.1
OTHER FEMALE							
HOUSEHOLD HEADS	3,428	4,219	5,469	8,322	791	1,250	2,853
Percent of Total	8.1	8.0	8.6	10.3	7.4	11.8	17.0
OTHER MALE HOUSE-							
HOLD HEADS	2,191	2,137	3,019	5,248	-54	882	2,229
Percent of Total	5.2	4.0	4.7	6.5	-0.1	8.3	13.3

Source: Census of Population and Households, 1950-1980, various tables. Because this particular breakdown of households relies on sample census data, total household counts are therefore slightly different from the 100 percent count totals.

FIGURE 2

Percentage Distribution of Households by Type, 1950-1980



Source: Census of Population and Households, 1950 to 1980, various tables.

Not only have married couple households decreased in number but they have also diminished in size. In 1980, only 50 percent of all married couples had children under the age of 18 living with them (down from 56 percent in 1970), and these families were only 30 percent of all households (compared with almost 39 percent in 1970). There are several reasons why children are disappearing from married-couple households. First, young couples are waiting longer to have children. Second, today's generation of young parents are having fewer children: families with one child are becoming ever more common while those with more than three children are increasingly rare. The freedom of choice offered by modern birth control methods, together with a general shift toward less child-oriented lifestyles, means that women born during the mid-1950s will bear a record-low number of children. It is likely that 20 to 25 percent of these cohorts will remain childless and that another 25 to 30 percent will have only one child by the time their childbearing years have ended in the 1990s.<sup>4</sup>

The third factor contributing to the shrinkage of average household size is that the parents of the baby-boom generation are increasingly in the "empty nest" stage of the life cycle. Since most empty nest households contain no more than two adults, the longer such households survive, the more they reduce the average size of all married-couple households. It is noteworthy that children are present for less and less of the life course of married-couple households, with both the pre-parent and empty nest periods representing more and more of the total years a couple lives together.

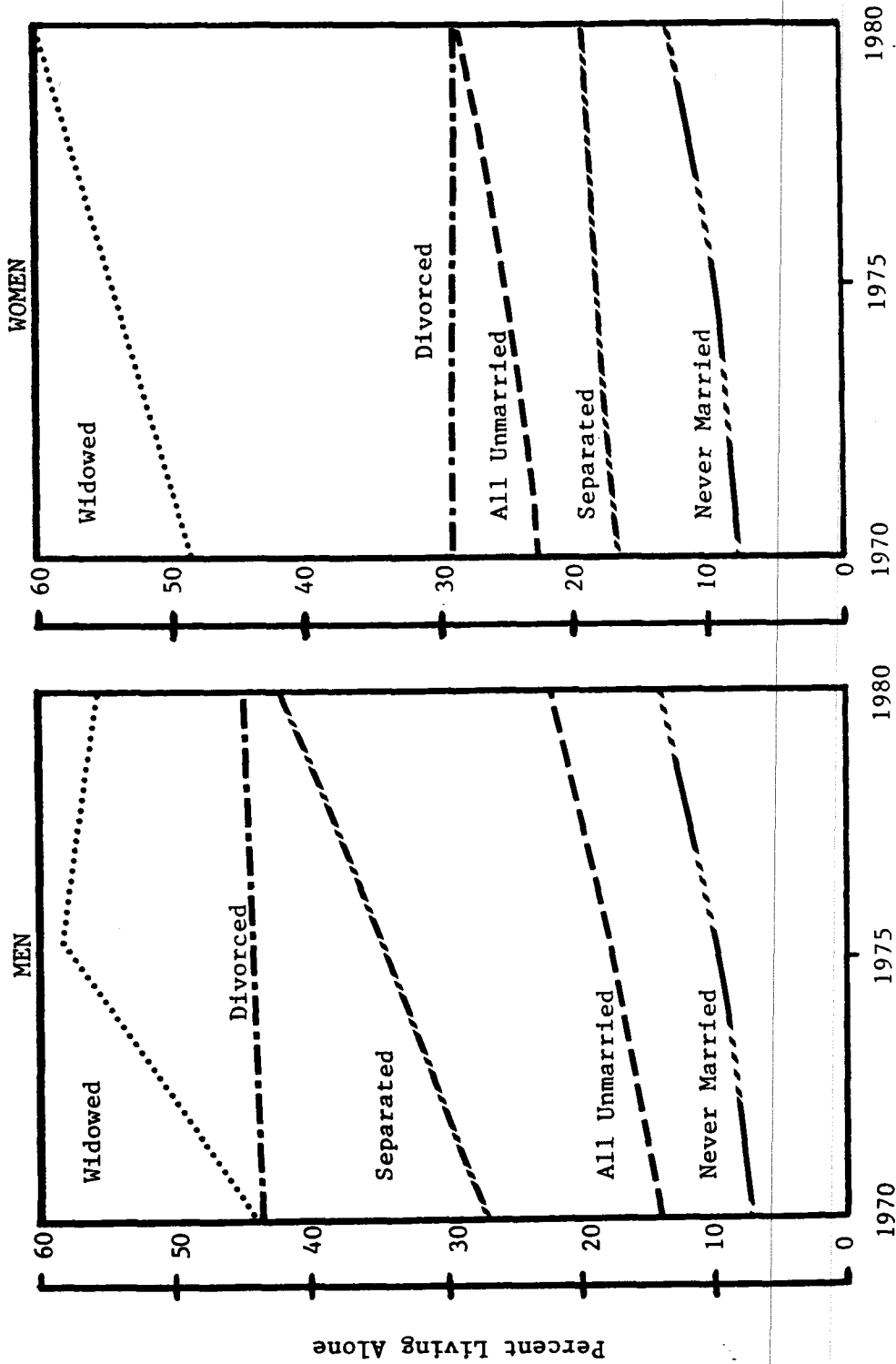


Finally, household size in general has shrunk as more adults choose to live alone. Of the 30 million net growth in total population over the age of 15 this past decade, more than 60 percent were unattached individuals; never-married adults accounted for 40 percent, divorced/separated/spouse absent for 15 percent, and widows for 5 percent. In 1970, a total of 19.8 percent of unmarried persons over the age of 15 lived alone; by 1980, the fraction of unattached adults who head single-person households rose to 24.4 percent.

The rise in the number of unmarried adults living alone is clear in both Figure 3, which shows the trend in the percent living alone by sex and marital status between 1970 and 1980, and Figure 4, which compares the numbers of single-person households in 1980 with those in all other household types by age group. More unmarried women overall live alone than do unmarried men simply because a higher fraction of women fall into the category with the highest rate of solo living, i.e., widows. In all other marital categories, a higher fraction of men live alone primarily because women are more likely to have children in their households. Since they are younger and tend either to live with parents or roommates, never-married individuals are the least likely of the unattached group to live alone.

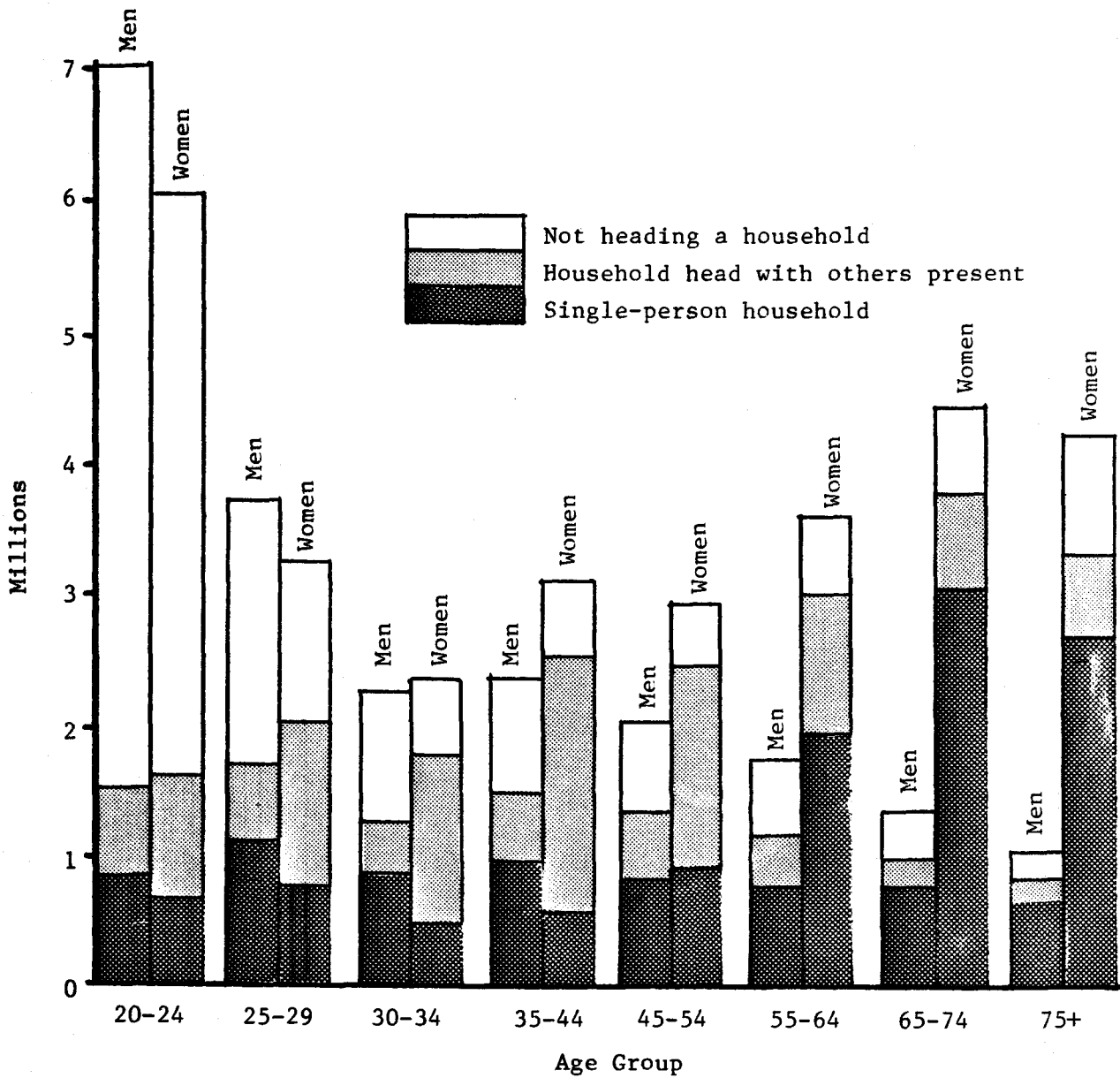
The longer term trend in headship rates among unmarried men and women is documented in Table 2. Before 1950, headship rates grew only among the young; after 1950, however, rates for both young and old individuals rose. Although a break appears in the growth of headship rates among older unmarried men between 1970 and 1980, it should be noted that this group represents a very small fraction of the total unmarried population.

FIGURE 3  
Proportion of Men and Women Who Live Alone by Marital Status  
1970, 1975, and 1980



Sources: Current Population Reports, Series P-20, Nos. 212, 287, and 365.

FIGURE 4  
 Unmarried Individuals by Age, Sex,  
 and Household Status, 1980



Source: Current Population Reports, Series P-20, No. 365, March 1980.

TABLE 2  
Proportion of Unmarried Adults  
Heading Their Own Households, 1940-1980

<u>Age and Sex</u>	<u>1940</u>	<u>1950</u>	<u>1960</u>	<u>1970</u>	<u>1980**</u>
<u>Males</u>					
20-24	.0325*	.0417*	.0598	.1221	.1968
25-29	.0774	.0961	.1631	.3262	.4325
30-34	.1438	.1576	.2459	.4078	.5148
35-44	.2495	.2564	.3354	.4928	.6057
45-54	.3804	.3740	.4452	.5921	.5897
55-64	.4750	.4492	.5137	.6503	.6108
65-74	.5050	.4834	.5477	.6669	.6863
75+	.4249	.4136	.4581	.5550	.6324
<u>Females</u>					
20-24	.0427*	.0727*	.1237	.2017	.2654
25-29	.1192	.1772	.3011	.4933	.5986
30-34	.2418	.2936	.4283	.6001	.7381
35-44	.4307	.4355	.5461	.6712	.8041
45-54	.5546	.5493	.6150	.7158	.8125
55-64	.5593	.5542	.6262	.7361	.8075
65-74	.5202	.5242	.6083	.7233	.8423
75+	.4085	.4056	.4668	.5530	.6540

\* Includes heads under age of 20.

\*\* Based on estimates of resident unmarried population from adjusted Current Population Survey data on household population.

Source: Calculated from data contained in Census of Population, various tables, 1940 to 1970; and 1980 Current Population Survey, "Marital Status and Living Arrangements," P-20, No. 365, and "Household and Family Characteristics," P-20, No. 366.

It is clear from the Census Bureau projections referred to earlier that forecasting trends in the number of households involves predicting the total number of people in each age group eligible to form households; how these individuals sort themselves into broad categories by marital status and children ever born (which are known to correlate highly with propensities to form independent households); and the probabilities of forming independent households, i.e., headship rates. Inaccurate projections thus imply mistakes in calculating total population, population composition, and/or headship rates.

Most household projections made during the 1970s erred in all three areas. Total projected population levels were generally too low because of higher than expected foreign immigration (both documented and undocumented), lower than expected rates of mortality among the elderly, and higher than expected headship rates among unmarried individuals. Predictions of population composition were also incorrect because of lower marriage rates and below-replacement levels of childbearing.

It is a mistake to assume that the pattern of change during the 1970s will automatically continue into the 1980s and beyond. There is good reason to expect, for example, that headship rates among unmarried adults of all ages will stop increasing and may even decline in the future. During the 1980s, adults in their mid- to late-20s represent the tail end of the baby-boom generation. Since their older siblings have already moved out, those who delay marriage will likely find it easier to remain in their parents' homes because of the availability of surplus space. For those in the leading edge of the baby boom in the late 1970s and early 1980s, the opposite was true: the

presence of many younger brothers and sisters created pressure to leave the parental home as soon as possible. Throughout the remainder of this century, the relative absence of young children and the larger housing units occupied by empty nest households may encourage an increase in two-generational households made up of both young adults and their parents, and the middle-aged and the elderly.

The latest Census Bureau projections of between 1.6 and 1.7 million new households per year for the decade of the 1980s assume that headship levels will increase at the same rates as in the 1970s. If the scenario of two-generational households actually occurs, however, the census projections of new households will be too high. Before making final judgment on these predictions, though, it is useful to examine differences in recent trends in household growth across regions of the country.

#### Regional Components of Household Growth: 1970-1980

When focusing on regional rather than national trends, it is important to recognize that two major factors influence adult population growth and therefore the total number of potential household heads in a particular age group. The first is the simple aging of the population already living in the region, i.e., the age structure factor, and the second is the change in the size of different cohorts because of net migration, i.e., the migration factor.<sup>5</sup> The age structure factor captures the impacts of the baby-boom and baby-bust generations moving into the household formation stage, as well as of greater longevity among the elderly. The migration factor is particu-

larly important in regional analysis because much of the variability in growth is due to population shifts.

Having determined changes in a region's population base, how the population arranges itself by marital status and presence of children strongly influences household formation, as do the levels and trends in the household headship rates of different family nuclei. Unfortunately, the Census Bureau has not yet published the data that would allow an estimate of how family composition and headship factors contributed to household trends in the 1970s. Making use of data that are available, this analysis therefore combines the effects of family composition and headship changes into one broad category called the household formation factor, which is the change in number of households not accounted for by the age structure and migration factors.

For the U.S. as a whole in the 1970s, the age structure factor accounted for almost 63 percent of the total increase in households, with migration accounting for 17 percent and higher rates of household formation 20 percent. The age structure factor is so important both because of the increase in the young adult population in the household formation ages and because of the delayed "departure" of the elderly.<sup>6</sup> The migration factor is significant because of a sizable increase over the decade in the number of migrants from abroad as well as the redistribution of unmarried adults from regions of relatively low levels of independent household formation (the North and East) to regions of relatively high levels of household formation (the West).

The overall contribution of the household formation factor masks the opposite but nearly equal effects of changes in marital status and in headship rates. The 1980 census reported an increase of 12.2

million single adults over the age of 15 above 1970 levels, but only 4.6 million more adults in the divorced/separated/spouse absent category. Because the baby-boom generation contributed more to the never-married group (the unmarrieds with the lowest headship rates) than to the divorced group, the net effect on the total number of households was therefore negative. The declining proportions of individuals ever married helped reduce the total number of households because never-married men and women in their early 20s more often live in households with three or more adults, including parents or roommates. Young married-couple households, in contrast, usually contain only two adults. By staying single, then, adults formed fewer new households than if they had married. Exercising an opposite influence, rising divorce rates over the decade tended to increase headship rates because many persons live alone immediately after separating. Higher divorce rates, however, only partially offset the impact of more people staying single.

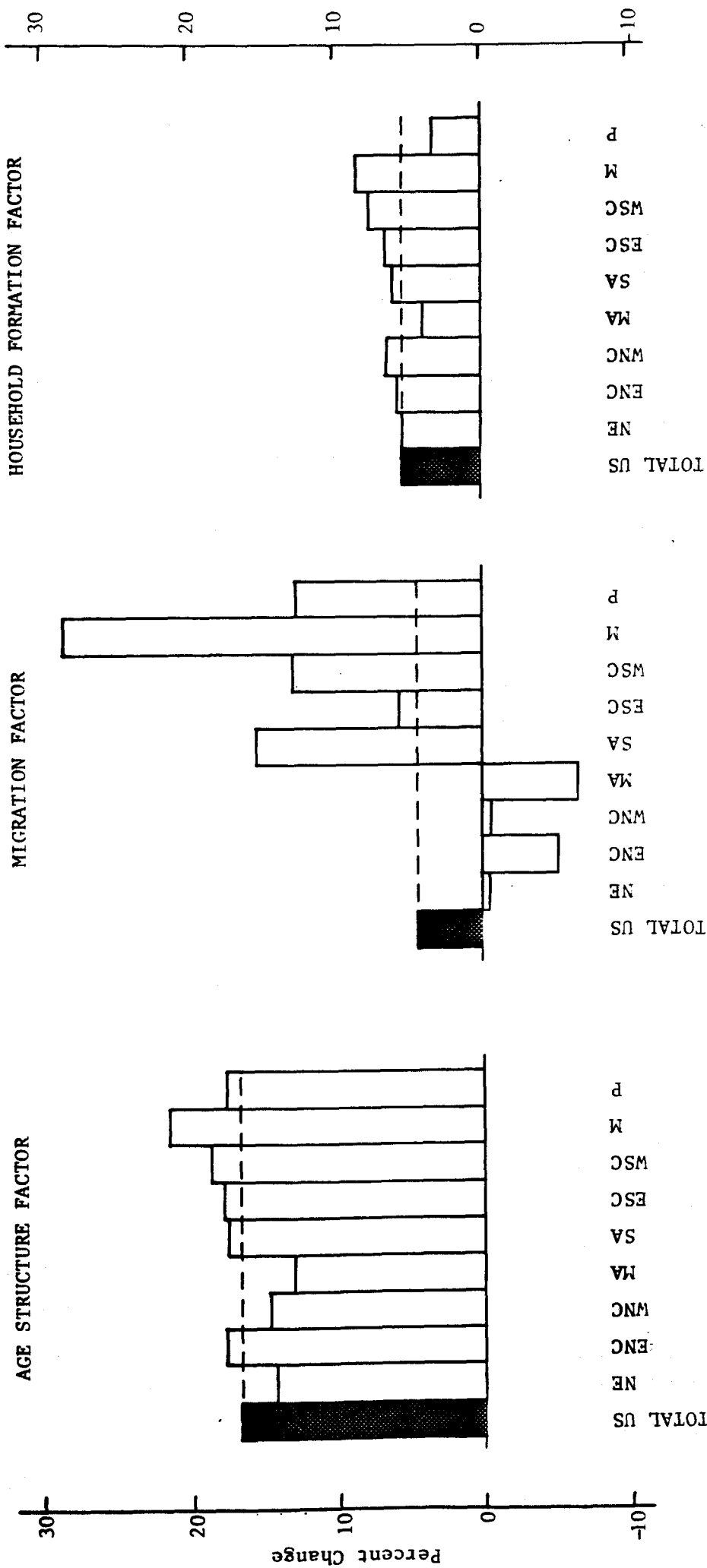
Rising headship rates among almost all age and marital status groups nonetheless served to increase the total number of U.S. households over the 1970s. Since these two opposing changes in marital status and headship rates are combined in the household formation factor, it is important to underscore that the gross changes are considerably stronger than the net changes we are able to compute.

#### The Age Structure Factor

As Figure 5 illustrates, there is little regional variation from the national average in number of new households attributable to the simple aging of the population between 1970 and 1980. The change in age structure had the least impact in the Middle Atlantic states and



FIGURE 5  
 PERCENT CHANGE IN TOTAL HOUSEHOLDS 1970-1980  
 THAT CAN BE ATTRIBUTED TO AGE STRUCTURE, MIGRATION,  
 AND HOUSEHOLD FORMATION FACTORS -- BY CENSUS DIVISIONS



Note: NE = New England, ENC = East North Central, WNC = West North Central, MA = Middle Atlantic, SA = South Atlantic, ESC = East South Central, WSC = West South Central, M = Mountain, P = Pacific.

Source: See Appendix A.

the most in the Mountain states. The majority of those born between 1940 and 1960 (cohorts who were in the prime household formation ages in the 1970s) thus remained distributed across regions in fairly close proportions to the share each region contributed to the original birth cohort.<sup>7</sup> The contribution of the age structure factor to the variation in total population is due to differences in the relative size of the baby boom in each region and to the migration of children (with their parents) and of those in the pre-household formation stage (mostly students and those in their early 20s) that occurred before 1970.

As measured by children ever born per woman aged 15-44 in 1960, Table 3 shows that the baby boom was smallest in the Middle Atlantic region (1.54 children per woman) and largest in the Mountain states (1.99 children per woman). Such historical differentials in fertility have an impact on household growth rates because they affect the age structure of the population. Those regions with higher fertility levels will eventually have more young adults. Since there is a lag of about 20 years before fertility shifts have their greatest impact on household formation, the 24.1 percent increase in the number of children ever born per woman during the 1950s did not have a significant impact until the 1970s.

During the decade 1960-1970, the number of children ever born declined by 8.3 percent, a decrease that will reduce household growth in the 1980s. The major impact of the baby bust on net new household formation will not come until the 1990s, however, when the effects of the 20.8 percent overall decline in children ever born during the 1970s will appear in the size of the young adult population.

Table 3  
Children Ever Born Per 1000 Women Age 15-44  
1950, 1960, 1970 and 1980

<u>Census Divisions</u>	<u>Children Ever Born</u>				<u>Rate of Change</u>		
	<u>1950</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1950-60</u>	<u>1960-70</u>	<u>1970-80</u>
New England	1,332	1,688	1,610	1,210	26.7	-4.6	-24.8
East North Central	1,380	1,790	1,678	1,336	29.7	-6.3	-20.3
West North Central	1,448	1,897	1,757	1,341	31.1	-7.4	-23.7
Mid Atlantic	1,181	1,542	1,510	1,212	30.6	-2.1	-19.7
South Atlantic	1,445	1,731	1,597	1,275	19.8	-7.7	-20.2
East South Central	1,675	1,919	1,716	1,422	14.6	-10.6	-17.1
West South Central	1,619	1,932	1,733	1,448	19.3	-10.3	-16.4
Mountain	1,622	1,987	1,769	1,420	22.5	-11.0	-19.7
Pacific	<u>1,403</u>	<u>1,860</u>	<u>1,648</u>	<u>1,271</u>	<u>28.2</u>	<u>-11.4</u>	<u>-22.9</u>
TOTAL U.S.	1,468	1,827	1,675	1,326	24.1	-8.3	-20.8

Source: Census of Population and Households, 1950 to 1980, various tables.

Somewhat paradoxically, the states that will experience the least effects of the baby bust during the 1980s are in regions with traditionally low fertility, namely the Middle Atlantic and New England states. Because the average childbearing age of women in these states is older, the baby boom ended later (and therefore the baby bust began later) in these regions than in other parts of the country. In the 1990s, however, the age structure in these regions will shift just as it has throughout the rest of the nation.

The lesson that is clear from the data in Table 3 is that trends in fertility predate trends in the size of the population in the household formation age groups by about 20 years. This fact allows us to look 20 years into the future to judge the direction and approximate strength of trends in the age structure factor on projected household growth.

#### The Migration Factor

For the country as a whole, the migration factor, i.e., foreign immigration and the net redistribution of population from lower to higher headship regions, contributed only 4.4 percent to net household growth over the decade. Between 1970 and 1980, the proportion of the population over the age of 15 living in the four frostbelt divisions (New England, East North Central, West North Central, and Middle Atlantic) fell from 52.1 percent of the total to 47.9 percent. Because the sunbelt regions, particularly the Pacific, had higher headship rates for unattached individuals, this shift contributed to a net increase in households for the nation.

For individual regions, however, population redistribution had a much stronger impact on the total number of households. As Figure 5

illustrated, migration accounted for a substantial gain in new households in the sunbelt and a loss in the frostbelt. For the Mountain states, the migration factor induced almost as much of the increase in household growth as the age structure and household formation factors combined. The East North Central and Middle Atlantic divisions suffered losses of households totaling over 1.4 million, or as much as the gain in new households experienced in the South Atlantic region.

Not only does the migration factor vary across regions, but it also varies over time. During the 1950s, for example, the East North Central and Middle Atlantic divisions gained new households through migration; by the 1970s, though, this trend had reversed itself. These changes suggest that the main source of errors in forecasting the number of households for subnational areas over one or two decades is in assumptions about migration.

When analyzing changing numbers of households at the state level, the degree of variability in the migration factor increases still further. Even within regions, some states gain while others lose households. The migration factor during the 1970s for New England as a whole, for example, induced a modest decline of 13,000 in the total number of households. Within the region, however, New Hampshire gained 47,000 households from the migration factor while Massachusetts lost 65,000. In the South Atlantic region, the District of Columbia lost 61,000 households due to migration (23 percent of its 1970 total), while Florida gained 1.1 million (almost 50 percent of its 1970 total). Although migration effects have generally been secondary to age structure effects in accounting for change in the total number

of households, notable exceptions exist in almost every region (see Appendix A).

#### The Household Formation Factor

Like the age structure factor, the household formation factor did not exhibit nearly as much regional variation as the migration factor during the 1970s. Since similar trends in family formation and headship over the decade apply to all regions, the household formation factor produced a fairly uniform pattern of household growth across the country. The region that experienced the smallest average growth in households due to the household formation factor (the Pacific) was also the region that experienced the largest increase in the fraction of each age group that was never married because of falling marriage rates. Because the marital status and headship components of the household formation factor are both large and of opposite sign, however, they deserve separate discussion.

Trends in marital status. Between 1970 and 1980, the total population over the age of 15 increased by 20 percent. If marriage rates remained at 1970 levels, both the never married and the currently married populations would have grown by approximately this same amount because of the changing population base. As Table 4 indicates, however, the number of never married individuals increased by 36 percent over the decade while the number of those currently married increased by only 13 percent. This shift occurred because fewer people chose to marry and those that did, married at older ages. Those regions of the country that lost some of their baby-boom cohort through migration had the lowest growth in both never and currently married individuals due to a shift in the population base. Those areas that gained migrants--

TABLE 4

Population Growth by Marital Status, 1970-1980, Population Aged 15+

Census Division	Size of Population		Percent Change 1970-1980 by Components of Change			
	1970	1980	$\Delta$ 1970-80	Due to Change in Population Base	Due to Change in Marital Status	Total Change
				in Population Base	in Marital Status	
<b>TOTAL U.S.</b>	33,919,684	46,115,248	12,195,564	18.5	17.5	36.0
NE	2,222,265	2,899,532	677,267	14.5	16.0	30.5
ENC	6,615,145	8,418,434	1,803,289	11.9	15.4	27.3
WNC	2,696,064	3,341,294	645,230	13.2	10.7	23.9
MA	6,735,519	8,447,223	1,711,704	8.4	17.0	25.4
SA	4,979,843	7,243,881	2,264,038	24.9	20.6	45.5
ESC	1,982,007	2,641,165	659,158	19.7	13.6	33.3
WSC	2,938,581	4,205,280	1,266,699	29.3	13.8	43.1
M	1,309,074	2,144,947	835,873	42.2	21.7	63.9
P	4,441,186	6,773,492	2,332,306	26.7	25.8	52.5
			<b>NEVER MARRIED POPULATION (BOTH SEXES)</b>			
<b>TOTAL U.S.</b>	89,050,950	100,657,161	11,606,211	20.9	-7.9	13.0
NE	5,074,387	5,351,008	276,621	13.9	-8.4	5.5
ENC	17,774,842	18,511,867	767,025	12.3	-8.0	4.3
WNC	7,335,134	7,996,714	661,580	14.3	-5.3	9.0
MA	16,186,880	15,781,687	-405,193	5.5	-8.0	-2.5
SA	13,390,585	16,616,290	3,225,705	32.3	-8.2	24.1
ESC	5,608,533	6,648,578	1,040,045	23.6	-5.1	18.5
WSC	8,495,191	10,828,704	2,333,513	32.5	-5.0	27.5
M	3,635,972	5,139,719	1,503,747	50.7	-9.3	41.4
P	11,579,426	13,782,594	2,203,168	30.4	-11.4	19.0
			<b>CURRENTLY MARRIED POPULATION (BOTH SEXES)</b>			

TABLE 4 (Cont'd)

Census Division	Size of Population			Percent Change 1970-1980 by Components of Change		
	1970	1980	Δ1970-80	Due to Change in Population Base	Due to Change in Marital Status	Total Change
<b>TOTAL U.S.</b>	10,501,211	15,116,584	4,615,373	22.3	21.7	44.0
NE	508,865	733,659	224,794	14.7	29.5	44.2
ENC	1,826,703	2,630,863	804,160	12.5	31.5	44.0
WNC	637,596	895,998	258,402	14.6	25.9	40.5
MA	1,786,681	2,301,376	514,695	6.3	22.5	28.8
SA	1,798,419	2,657,898	859,479	31.4	16.4	47.8
ESC	668,069	906,555	238,482	23.6	12.1	35.7
WSC	1,068,808	1,562,530	493,722	32.7	13.5	46.2
M	419,221	765,194	345,973	52.3	30.2	82.5
P	1,786,849	2,662,511	875,662	30.3	18.7	49.0
<b>DIVORCED, SEPARATED, SPOUSE ABSENT POPULATION (BOTH SEXES)</b>						
<b>TOTAL U.S.</b>	11,738,340	13,386,171	1,647,831	23.2	-9.6	13.6
NE	722,969	770,562	47,593	16.3	-9.7	6.6
ENC	2,219,525	2,410,705	191,180	15.7	-7.1	8.6
WNC	977,385	1,048,970	71,585	14.5	-7.7	7.3
MA	2,414,820	2,495,385	80,565	12.5	-9.2	3.3
SA	1,813,474	2,338,837	525,363	40.5	-11.5	29.0
ESC	799,038	940,925	141,887	26.5	-8.7	17.8
WSC	1,096,580	1,314,835	218,255	30.9	-11.0	19.9
M	371,265	488,180	116,915	48.8	-17.3	31.5
P	1,323,284	1,577,772	254,488	31.3	-12.1	19.2
<b>WIDOWED POPULATION (BOTH SEXES)</b>						
<b>TOTAL U.S.</b>	11,738,340	13,386,171	1,647,831	23.2	-9.6	13.6
NE	722,969	770,562	47,593	16.3	-9.7	6.6
ENC	2,219,525	2,410,705	191,180	15.7	-7.1	8.6
WNC	977,385	1,048,970	71,585	14.5	-7.7	7.3
MA	2,414,820	2,495,385	80,565	12.5	-9.2	3.3
SA	1,813,474	2,338,837	525,363	40.5	-11.5	29.0
ESC	799,038	940,925	141,887	26.5	-8.7	17.8
WSC	1,096,580	1,314,835	218,255	30.9	-11.0	19.9
M	371,265	488,180	116,915	48.8	-17.3	31.5
P	1,323,284	1,577,772	254,488	31.3	-12.1	19.2



especially the South Atlantic, Mountain, and Pacific regions--not only experienced a greater than average increase in the absolute number of never marrieds but also a higher than average increase in the fraction of the population remaining single.

In combination, then, the shifting population base and changing marriage rates in regions receiving migrants meant a growth in the never married population at rates far above the national average. Whereas the number of never married adults rose 36 percent over the decade in the nation as a whole, this population group grew by 45 percent in the South Atlantic region, 64 percent in the Mountain region, and 52 percent in the Pacific region. Even the three regions with the least change in the fraction single (the more rural and more traditional West North Central, East South Central, and West South Central states) still experienced significant overall growth in the size of the never married population because of the shift in the population base.

The largest increase in a particular marital category was among the formerly married, i.e., those who are divorced, legally separated, or have an absent spouse. For the U.S. as a whole, a 44 percent increase occurred in the number of the formerly married, with changes in the population base and in marriage distribution rates each accounting for about half of the total growth. While the frostbelt regions displayed the greatest increase in the share formerly married, the sunbelt regions (with the exception of the Mountain states) experienced the least increase. Although it is not immediately apparent why rates of marital dissolution should split along this geographic line, it is likely that marital dissolution is just another indicator of the

economic stress that was experienced in the 1970s in the North and East. The Mountain states could provide the exception that proves the rule because so much of their economic growth has been of the boom and bust variety.

The number of widowed individuals, the final marital status category defined in Table 4, also rose over the 1970s. The sharp decline in mortality rates modified the effects of the change in population base to yield modest overall increases in the widowed population. Those regions that received elderly migrants showed the largest gains in life expectancy, probably because the retirement migration stream was heavily represented by relatively healthy married couples. It is possible, though, that retirement migration itself may have beneficial impacts on health and longevity because of improvements in climate and psychological well-being.

As interesting as trends in marital status are in their own right, the principal focus here is on how they affect the number of households being formed. Even without data on regional headship rates, it is clear from both Figure 5 and Table 4 that the positive trend in headship rates over the 1970s must have been strong in order to more than cancel out the negative effects of trends in marital status and fertility. In addition, these data imply that considerable variation in headship rates exists between the frostbelt and sunbelt regions, and that the impact of this variation is in the opposite direction of the regional variation in marital status. To yield the small regional variation in the combined household formation factor depicted in Figure 5, the frostbelt states must have experienced greater increases

in headship rates to compensate for their greater growth in unmarried households.

Trends in headship. The data presented in Table 5 divide the household population<sup>8</sup> into four marital status categories: never married, married couples, widows, and all those previously married except widows. Once again, all groups of unmarried individuals display an increase in headship rates. By 1980, the rates for previously married individuals appear to have stabilized near 80 percent, and between 80 and 90 percent for widows. Headship rates among the never married population are still well below those characteristic of other unattached adults. It should be noted that because Table 5 is based upon the population living in households, it does not measure well the headship rates among unmarried adults below age 25 (and particularly those below age 20) because the fractions of these age groups split between the household and non-household populations has varied considerably over time. Sample survey data are insufficient to examine similar trends in headship on a regional basis and, as stated earlier, delay in the release of 1980 census data have forestalled our efforts to make regional comparisons.

#### Future Growth in Numbers of Households

Holding constant trends in migration, marital status, and headship, an estimated 63 percent of the increase in the number of U.S. households over the 1970s was due to the simple aging of the population. This factor will also be the dominant force in household trends for the next two decades: as Figure 6 illustrates, the number of young adults in the prime household formation ages of 25-34 will

TABLE 5

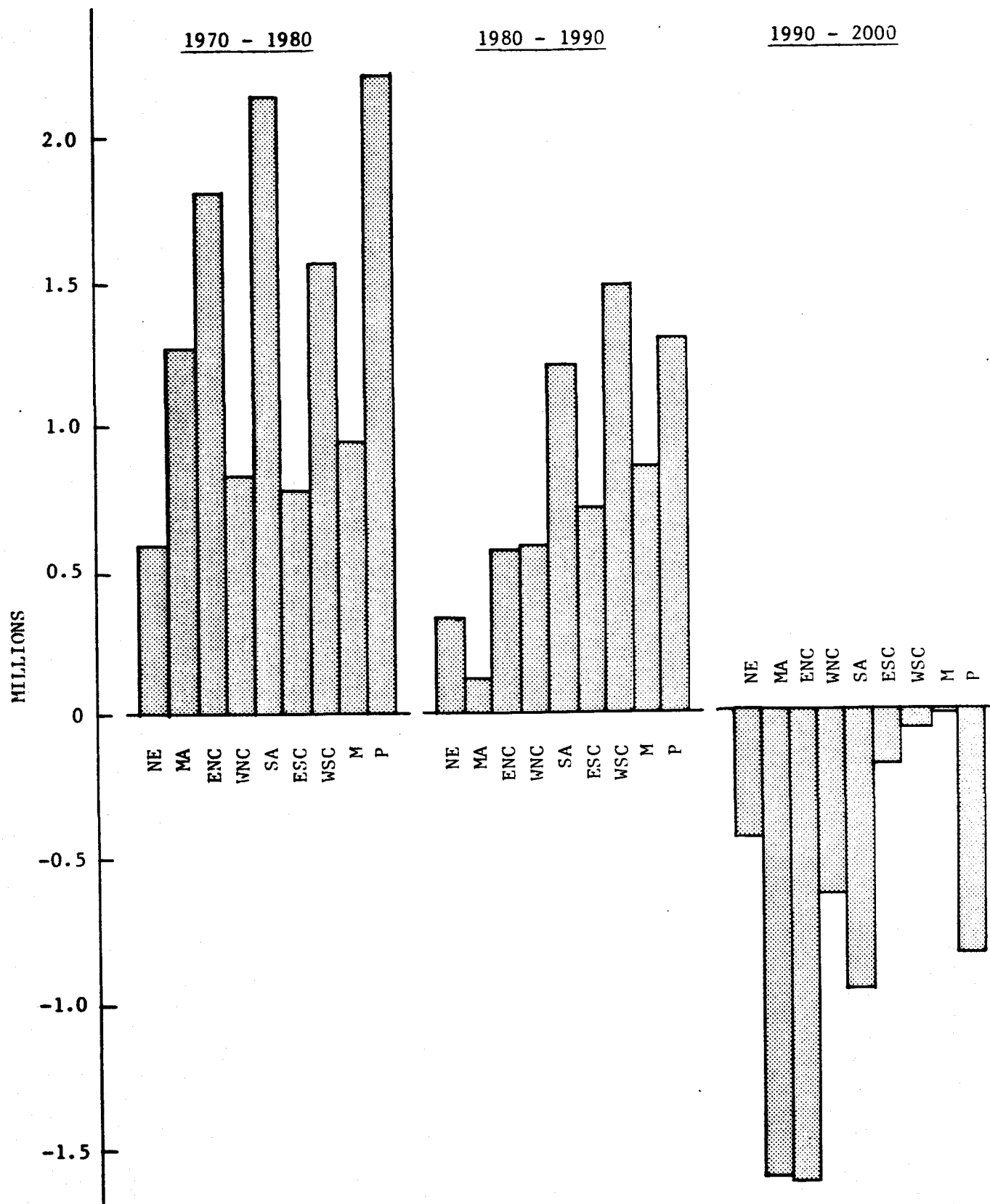
Headship Rates by Age and Marital Status: 1960, 1970, 1975 and 1980

<u>Age Group</u>	<u>1960</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1960</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>
	<u>Currently Married Couples</u>				<u>Never Married Men and Women</u>			
15-19	.8356	.8690	.8975	.8964	.0064	.0103	.0169	.0174
20-24	.9467	.9616	.9701	.9610	.0885	.1592	.1948	.2116
25-29	.9760	.9860	.9839	.9836	.1954	.3397	.4369	.4425
30-34	.9841	.9925	.9936	.9893	.2662	.3931	.5003	.5726
35-39	.9884	.9946	.9931	.9952	.3194	.4152	.5310	.5789
40-44	.9908	.9958	.9956	.9948	.3657	.4468	.5297	.5831
45-49	.9902	.9954	.9939	.9964	.4293	.4964	.5492	.5735
50-54	.9905	.9947	.9957	.9935	.4834	.5316	.5372	.6004
55-59	.9892	.9928	.9917	.9953	.5101	.5970	.5772	.5920
60-64	.9832	.9909	.9925	.9910	.5606	.6257	.6267	.6490
65-69	.9772	.9873	.9886	.9873	.6015	.6501	.7088	.7251
70-74	.9695	.9847	.9841	.9906	.5913	.6559	.6890	.7735
		<u>Widows</u>				<u>Previously Married Men and Women</u>		
15-19	.2953	.3395	—	.4355	.0939	.1408	.2197	.2201
20-24	.4894	.7132	.6798	.8140	.2763	.3873	.5389	.5476
25-29	.7137	.8136	.9417	.8616	.4556	.5961	.7067	.6865
30-34	.7996	.8486	.8954	.9216	.5554	.7015	.8062	.7700
35-39	.7917	.8942	.9021	.9184	.6309	.7313	.8266	.8358
40-44	.8134	.8936	.9280	.9042	.6543	.7531	.8534	.8362
45-49	.8089	.8836	.9295	.8823	.6758	.7652	.8221	.8526
50-54	.7919	.8602	.9085	.8691	.6804	.7521	.8061	.8406
55-59	.7576	.8411	.8769	.9061	.6803	.7619	.8309	.8463
60-64	.7120	.8168	.8765	.8590	.6774	.7609	.8147	.8404
65-69	.7019	.7978	.8550	.8689	.6575	.7594	.8541	.8418
70-74	.6551	.7711	.8303	.8630	.6521	.7537	.8079	.8676

Source: Joint Center tabulations

FIGURE 6

Observed and Projected Growth in 25-34 Year Old  
Age Group by Census Division: 1970-2000  
 (Numbers in Millions)



Source: George Masnick and John Pitkin, The Changing Populations of States and Regions: Analysis and Projections (Cambridge: Joint Center for Urban Studies, 1982)

increase by about 7.0 million during the 1980s (considerably less than the 12.1 million growth in this age group in the previous decade), and then begin to decline as the baby-bust generation replaces the baby-boom cohorts. After more than a quarter-century of growth in the number of young adults, population decline in the 25-34 age group will introduce a new demographic dynamic to the household formation equation in the 1990s.

Accurate projection of the number, type, and composition of households requires a "window on the future" with respect to growth of the total population, changes in marital status and family composition, and rates of household headship. Errors in predicting trends in each of these three variables could cancel each other to yield a total projection that is more accurate than the component forecasts; alternatively, two forecasts may reach the same total number of households but imply a very different mixture of households by age and family composition.

Our window on the future is cohort analysis of trends among specific categories of actual and potential household heads, or "family nuclei." Earlier research has demonstrated that the best way of predicting the future behavior of a particular family nucleus (e.g., divorced women aged 25-29 with two children) is to follow this household category over time as it ages.<sup>10</sup> For every five-year age group, our analysis employs 16 such categories broken down by sex, marital status, and presence of children under the age of 15:

- o Married couples with no children
- o Married couples with one child
- o Married couples with two or three children
- o Married couples with four or more children

- o Never married males
- o Previously married males with no children
- o Previously married males with children
- o Never married females with no children
- o Never married females with children
- o Divorced, separated, married/spouse absent females with no children
- o Divorced, separated, married/spouse absent females with one child
- o Divorced, separated, married/spouse absent females with two or three children
- o Divorced, separated, married/spouse absent females with four or more children
- o Widowed females with no children
- o Widowed females with one child
- o Widowed females with two or more children.

This typology of families and individuals corresponds to neither the census definition of households nor of families and primary individuals; it is designed instead to account for all adult individuals and couples who could potentially form (head) a separate household without changing their marital status, even if the person is presently living with other adults and not heading a household. Defined in this way, families and individuals constitute the population of potential household heads or family nuclei. Every household (except a negligible number having no members over age 14) includes at least one such family or individual. It should also be noted that every member of the household population belongs to one and only one family nucleus.

Together with Table 1, Table 6 indicates that married couples constituted 51.6 percent of the family nuclei and 74.7 percent of all households in 1960. By 1970, the proportion of married couple nuclei fell to 46.9 percent, while their share of total households dropped to 69.1 percent. Between 1970 and 1980, the fraction of married couple nuclei decreased still further as the baby-boom generation swelled the ranks of 20-34 year olds and as age at marriage continued to rise.

TABLE 6  
Types of Family Nuclei (Potential Household Heads)  
in 1960, 1970, and 1980, and Projected for 1990

Household Type	1960	1970	1980	1990
<b>Married Couples</b>				
No Children under 15 Present	23.1%	23.0%	22.6%	20.1%
Children under 15 Present	28.5	23.9	18.9	20.9
<b>Other Male Head</b>				
Never Married	15.0	16.5	19.2	17.7
Previously Married				
No Children under 15 Present	5.4	5.3	6.0	6.9
Children under 15 Present	0.4	0.6	0.5	0.7
<b>Other Female Head</b>				
Never Married				
No Children under 15 Present	12.5	14.3	15.7	14.3
Children under 15 Present	0.2	0.5	1.0	1.0
<b>Divorced/Separated</b>				
No Children under 15 Present	3.2	3.9	4.5	5.1
Children under 15 Present	2.0	2.4	3.2	3.9
<b>Widowed</b>				
No Children under 15 Present	8.9	8.9	8.1	9.0
Children under 15 Present	0.8	0.8	0.4	0.5
<b>Total</b>	100.0	100.1	100.0	100.0

SOURCE: Joint Center calculations.



The magnitude of the shift away from the traditional married-couple household with children is far greater than can be explained by the changing distribution of family nuclei: the degree to which unmarried family nuclei become independent households is a much more critical factor. Assumptions that marriage and fertility patterns will place the baby-boom cohorts into family nucleus categories with higher headship rates--and assumptions about further increases in household formation rates among family nuclei with lower headship rates--can thus lead to overestimates of the projected number of total households and shifts in the share of households each family nucleus type represents. In the Census Bureau's household forecasts, for example, assumptions about high marriage rates and above-replacement fertility levels served to distribute much of the population into high household headship categories. Assuming that the significant increase in headship rates among non-family nuclei would continue also contributed to high projections of household growth.

It is questionable whether likely trends in marital status and headship rates will offset the negative effects on household formation of the changing age structure. By the mid-1980s, the baby-boom generation will have made its contribution to the stock of new households. The delayed marriages of baby-boom cohorts now in their late 20s and 30s have, in fact, begun to reduce the number of households: once headship rates among the unmarried exceed 50 percent, marriage necessarily implies that two existing households combine to form one. Increases in the number of households because of separation and divorce, however, will help to offset these mergers. Over the next decade, the net effect of trends in marriage, divorce and remarriage among the

baby-boom generation will therefore be to stabilize the number of households they form.

The tail end of the baby-boom and the trailing baby-bust generations will not be able to offset the negative impact on number of households brought about by their shrinking cohort size, especially if they adopt the late marriage patterns of their older siblings. Our projections suggest that the proportion married among cohorts in their 20s and early 30s will continue to decline during the next decade; those who do marry will have fewer children than ever before. Taken together, these trends should lead to slow growth in the number of households unless the growing proportions of unattached adults exhibit significantly higher headship rates than the baby-boom generation.

#### Two Household Growth Scenarios

Based on our projections of total population and of the distribution of family nuclei, the household forecasts presented in Table 7 illustrate the implications of assuming alternative headship rates.<sup>11</sup> If household formation rates continue to grow as they did in the early 1970s, for example, the stock of households would increase by 2 million per year; using the rates experienced during the late 1970s, in contrast, implies that households would only increase by 1.5 million per year. According to the slow growth scenario (Late 1970s), the gradual replacement of the baby-boom by the baby-bust generation of young adults in the same household formation ages has the effect of decreasing the number of households headed by those under 25. Under the rapid growth scenario (Early 1970s), however, the projected increase in headship rates between 1980 and 1985 more than counterbalances the rate of decline in population aged 15-24.

TABLE 7

## Household Projections by Age of Head Under Alternative Assumptions About Growth in Headship Rates

Age of Head or Wife	1980 Households	Projected 1980-85 Increase		Projected 1985-90 Increase	
		Early 1970s Trends	Late 1970s Trends	Early 1970s Trends	Late 1970s Trends
< 25	8,580	1,021	-226	-90	-787
25-29	9,979	1,670	1,104	766	193
30-34	9,493	1,561	1,256	1,612	1,284
35-44	13,928	3,753	3,436	3,725	3,338
45-54	12,447	94	-30	1,782	1,585
55-64	12,000	517	418	-551	-607
65-74	9,029	864	724	944	777
75+	<u>5,633</u>	<u>1,284</u>	<u>1,182</u>	<u>1,311</u>	<u>1,190</u>
All Ages	81,088 <sup>1</sup>	10,764	7,864	9,499	6,974

<sup>1</sup>Based upon Annual Housing Survey estimates. Total households differ from census estimates. 1980 Census estimates broken down by age not yet available at time of this writing.

Source: Joint Center calculations.

Table 8 highlights the differences in headship rates that would characterize the 1980s under the two scenarios. It should be emphasized that we consider the rates of household formation experienced in the early 1970s (2.0 million net additions per year) entirely outside the range of possibility for the 1980s. Indeed, household formation rates may even drop to 1.2 to 1.3 million per year if more unmarried individuals delay leaving their parental homes and then double up in households. In our judgment, strong economic recovery might only push the average annual rate of household formation over the decade into the 1.6 million range because of the greater attractiveness of living with parents or roommates in the increasingly underutilized stock of single-family houses.

#### Projections of Households by Region

Until we process 1980 Census Public Use tapes, it is not feasible to use the family nuclei cohort method to project regional growth in the number of households. We do know, however, that the regional variation in aggregate headship rates over the 1970s is not very large: New England's aggregate headship rates are about three percent lower than the U.S. average at one end of the range, and the Mountain and Pacific regions are between two and four percent higher at the other end. Even though much larger differences exist across regions in marital status and in headship rates specific to marital status and age categories, this variation disappears when persons of all ages and marital categories are combined. Why this is true is not altogether clear.

TABLE 8

Projected Headship Rates by Age, U.S. Total 1970, 1980, 1985 and 1990Projections Using 1970-75 Cohort Trajectories ("Early '70s Trends")

	<u>1970</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
< 25	.1892	.2020	.2403	.2632
25-29	.4856	.5113	.5294	.5659
30-34	.5083	.5407	.5504	.5674
35-44	.5140	.5434	.5565	.5677
45-54	.5227	.5460	.5595	.5740
55-64	.5285	.5530	.5630	.5719
65-74	.5469	.5796	.5903	.6080
75+	.4849	.5652	.5976	.6207

Projections Using 1975-80 Cohort Trajectories ("Late '70s Trends")

< 25	.1892	.2020	.2044	.2094
25-29	.4856	.5113	.5037	.5140
30-34	.5083	.5407	.5352	.5391
35-44	.5140	.5434	.5465	.5490
45-54	.5227	.5460	.5540	.5611
55-64	.5285	.5530	.5586	.5645
65-74	.5469	.5796	.5820	.5908
75+	.4849	.5652	.5888	.6039

Source: Joint Center projections.

Given the major changes that occurred in the 1970s in marriage patterns and headship rates of single, divorced and widowed men and women in each region, it is even more surprising that the regional variation in crude aggregate headship was relatively stable over time. As Table 9 indicates, in only three regions do the ratios of observed to expected household growth using national headship rates differ by greater than one percent over the decade 1970-1980. Headship rates in the Middle Atlantic region declined by about one percent relative to the national average, decreased by about two percent in the Pacific region, and increased by about one percent in the Mountain states. Rates in all other regions remained approximately constant over the decade. It appears that especially tight housing markets in the Middle Atlantic and Pacific regions served to drive headship rates down, while prosperity in the Mountain states attracted a large number of migrants who tended to live more independently than those in the region in 1970.

Since we do not fully understand why this stability existed over the past decade, it is difficult to predict the likelihood that it will continue over the next. Even if headship rates were to remain constant, we lack the data to disaggregate regional household projections by age, sex, and marital status of head, which is an important step in linking projected household demand to patterns of housing consumption.

With these qualifications in mind, Table 10 presents regional projections of total households based upon the Joint Center's total population forecasts and assuming the two rates of increase in headship used in Table 8. Under the high growth scenario of the early

TABLE 9

Ratio of Actual/Hypothetical Households if  
U.S. Headship Rates Held for Regional Populations

<u>Census Division</u>	<u>1970</u>	<u>1980</u>	<u>Diff.</u> <u>1980-1970</u>
NE	.9719	.9686	-.0033
MA	.9808	.9701	-.0107
ENC	.9987	1.0039	.0052
WNC	1.0196	1.0191	-.0005
SA	.9892	.9902	.0010
ESC	.9862	.9926	.0064
WSC	1.0126	1.0207	.0081
M	1.0232	1.0334	.0102
P	1.0402	1.0197	-0.0205
U.S. TOTAL	1.0000	1.0000	1.0000

Source: Joint Center calculations.

1970s, only two regions fail to have a higher projected number of households; the increase in households in the Middle Atlantic region falls from about 1.22 million between 1970 and 1980 to about 0.84 million between 1980 and 1990, while new households in the East North Central region decline from about 2.26 million to 2.11 million. Under the slow growth scenario, these two regions would gain new households at still lower rates, with the Middle Atlantic states projected to have only 110,000 more households in 1990 than in 1980 and the East North Central states projected to grow by only a little over a million households. New England, the South Atlantic and the Pacific regions also exhibit smaller increases under the slow growth scenario than was actually observed in the period 1970-1980. Only the East South Central and Mountain regions are projected to experience an increase under both scenarios over what occurred in the last 10 years. The regional shares of total household growth, both observed and projected, are given in Table 11.

The near zero net growth in households in the Middle Atlantic region under the late 1970s scenario deserves further comment. Three factors combine to reduce the number of households: out-migration; delayed family formation among young adults who remain; and lower than average headship rates among the unmarried population. Our population projections assume a net loss of about 7 million persons from the cohort that was aged 15-24 in 1980. Such levels of outmigration are consistent with a national economic growth scenario that is more optimistic than the experience of the first third of the 1980s. With greater prosperity, more migrants would likely seek employment in the south and west where new opportunities are projected to be the



TABLE 10

## Observed and Projected Change in Number of Households by Region (Millions of Households)

Census Division	Total Number of Households					Growth Over Decade				
	1960 <sup>1</sup>	1970 <sup>1</sup>	1980a <sup>2</sup>	1980b <sup>3</sup>	1990a <sup>4</sup>	1990b <sup>5</sup>	1960 to 1970	1970 to 1980a	1980b to 1990a	1990b to 1990b
NE	3.12	3.65	4.36	4.39	5.34	5.06	0.53	0.71	0.95	0.67
MA	10.14	11.88	13.10	13.21	14.05	13.32	1.47	1.22	0.84	0.11
ENC	10.71	12.41	14.67	14.79	16.90	15.97	1.70	2.26	2.11	1.18
WNC	4.67	5.17	6.21	6.26	7.77	7.35	0.50	1.04	1.51	1.09
SA	7.27	9.47	13.16	13.27	17.07	16.15	2.20	3.69	3.80	2.88
ESC	3.31	3.89	5.05	5.09	7.04	6.66	0.58	1.16	1.95	1.57
WSC	4.93	5.97	8.30	8.37	11.85	11.17	1.04	2.33	3.48	2.80
M	1.98	2.53	4.00	4.04	6.12	5.77	0.55	1.47	2.08	1.73
P	6.65	8.67	11.59	11.68	15.22	14.49	2.02	2.92	3.54	2.81
TOTAL U.S.*	53.02	63.64	80.43	81.09	101.35	95.93	10.62	16.79	20.26	14.84

<sup>1</sup>Decennial census numbers.

<sup>2</sup>Based on provisional census estimates; differs from 1980 Annual Housing Survey totals.

<sup>3</sup>Household totals consistent with 1980 Annual Housing Survey headship rates and 1980 Census population data.

<sup>4</sup>High growth scenario -- based on national headship rates projected according to 1970-75 cohort trajectories measured from 1970 Census Public Use Sample and 1975 Annual Housing Survey.

<sup>5</sup>Low growth scenario -- based on national headship rates projected according to 1975-1980 cohort trajectories measured from 1975 and 1980 Annual Housing Surveys.

\*Regional figures may not add up to national totals because of rounding error.

Table 11

Share of Total Household Growth by Region:  
1960-1970 and 1970-1980 Observed and 1980-1990  
Projected under Two Growth Scenarios

<u>Region</u>	<u>1960-1970</u>	<u>1970-1980</u>	<u>1980-1990<sup>1</sup></u>	<u>1980-1990<sup>2</sup></u>
NE	5.0%	4.2%	4.7%	4.5%
MA	13.9	7.3	4.1	0.7
ENC	16.0	13.5	10.4	8.0
WNC	4.7	6.2	7.4	7.3
SA	20.7	22.0	18.8	19.4
ESC	5.5	6.9	9.6	10.6
WSC	9.8	13.9	17.2	18.9
M	5.2	8.8	10.2	11.7
P	19.0	17.4	17.5	18.9
U.S. TOTAL	100.0	100.0	100.0	100.0

Source: Table 10.

1. Early 1970s high growth scenario.
2. Late 1970s low growth scenario.

greatest. If, on the other hand, we experience diminished rates of mobility because of a lackluster economy, a growing proportion of young adults in the Middle Atlantic region will likely remain in their parental households because of job insecurity and the high cost of housing. Although economic recession may thus keep more of the baby-boom generation in the Middle Atlantic states, headship rates would probably be lower than our projection assumes and the net effect on household formation would be modest at best.

In the final analysis, it may be that the simplified assumptions used as a basis to project regional shares of total household growth are not valid for the Middle Atlantic states. For example, high levels of outmigration might release enough pressure on the housing market to allow for higher rates of household formation than the static model assumes. Alternatively, lower rates of outmigration might increase the demand for new housing, which, if supplied, could likewise lead to stable rather than declining headship rates. When the appropriate analysis of 1980 census data are completed, the calculation of cohort headship trends for separate types of family nuclei in each region will help resolve this ambiguity.

## NOTES

1. Current Population Reports, "Demographic Projections for the United States," Series P-25, No. 476.
2. Current Population Reports, "Projections of the Number of Households and Families: 1975-1990," Series P-25, No. 607.
3. Current Population Reports, "Projections of the Number of Households and Families: 1979-1995," Series P-25, No. 805.
4. See George S. Masnick, "The Continuity of Birth Expectations Data with Historical Trends in Cohort Parity Distributions: Implications for Fertility in the 1980s," in Gerry Hendershot and Paul Placek (eds.), Predicting Fertility: Demographic Studies of Birth Expectations (Lexington, MA: D.C. Heath, 1981).
5. This line of analysis was suggested in a paper by William Alonso, "The Demographic Factor in Housing for the Balance of this Century," in Michael A. Goldberg and George W. Gerr (eds.), North American Housing Markets into the Twenty-First Century (Cambridge, MA: Ballinger Publishing Co., 1983). To accomplish this, we first calculate an expected population by age and sex for each region for 1980 under the assumption that net migration for each state was zero for the entire 1970-1980 decade. That is, the only way that we allowed the population to change in each state was through the effects of the survivorship of the population already living in the state in 1970. This hypothetical 1980 population was then distributed by marital status according to the 1970 state distribution. Finally, 1970 state, age, sex, marital status specific headship rates were applied in order to calculate the hypothetical number of households that would be present in 1980 if everything were held constant at 1970 levels except the aging of the population. The difference between the actual 1970 number of households and this hypothetical figure is the change attributed to the age structure factor.  
 Next, the actual 1980 population by age and sex in each state was used along with the 1970 marital status distributions and headship rates to calculate another hypothetical number of households. This time, the difference between this new hypothetical number and the hypothetical number calculated under the zero migration assumption is the change due to the migration factor. Finally, by adding together the changes due to the age structure and migration factors and subtracting this total from actual observed changes in number and type of households in each state between 1970 and 1980, the result is the change not explained by age structure or migration. This residual change is due to the combined effects of changing marital status and changing headship rates, or what we have called the household formation factor.
6. Other approaches have combined the age structure and migration factors into a "population change" factor, and then partitioned the

population change effect into a "population growth" factor (simple increase in the number of people over the age of 15) and a "population composition" factor (especially, shift in the age distribution). According to this methodology, both the population growth and population composition factors contain the influence of the simple aging of the population already in place and of migration. Our aim is to separate the components of demographic change that are largely independent of economic factors (age structure effects) from those that depend more closely on the economic climate operating during the period of change (migration effects and household formation effects).

7. Here we are not referring to individuals who are still residing in their region of birth, but to the ratio of the size of the cohort in residence relative to the size of the cohort of birth. To a large extent, those who move out of each region are replaced by others who are the same age.

8. Because Table 5 mixes both census (1960 and 1970) and Annual Housing Survey data (1975 and 1980), the former based upon an enumeration of the entire resident population and the latter based on a sample of the household population only, the calculation includes only that portion of the census data representing persons living in households. Limiting data to the household population only when calculating headship rates has the effect of raising the rates because numerators are unaffected but denominators are small.

9. George Masnick and Mary Jo Bane, The Nation's Families: 1960-1990 (Boston: Auburn House Publishing Co., 1980).

10. John Pitkin and George Masnick, "Projections of Housing Consumption in the U.S., 1980 to 2000, by a Cohort Method," Annual Housing Survey Studies, No. 9, June 1980. For the nation as a whole, we have undertaken the analysis of cohort behavior with respect to population growth, marital status, family size, headship, and housing consumption by following the aging of 16 family nucleus categories defined by sex, marital status, and family size over the period since World War II.

11. These new projection series differ from earlier Joint Center forecasts in two ways. First, the series using the headship trends of the 1960-1970 period (Series 2-B(R)) have been dropped and replaced by the series representing household formation trends from the 1975-80 period. Second, the jump-off point for the new projections is the 1980 census population data, transformed into households using 1980 Annual Housing Survey headship rates. The earlier Joint Center forecasts are found in John Pitkin and George Masnick, "Linking Projections of Households with Housing Consumption: An Exploration of Alternative Series," report prepared for Office of Policy Development and Research, Department of Housing and Urban Development, June 1981.

Appendix A

State Detail on Components of  
Change in Household Growth  
1970 to 1980

TABLE A-1  
 Components of Change in Total Number of Households, 1970-1980, for Regions and States (Thousands)\*

Census Division and States	Change in Number of Households and Percent Growth by Components of Change							
	Total Changes 1970-80 (%)	Due to Age Structure (%)	Due to Migration (%)	Due to Household Formation (%)				
<u>NEW ENGLAND</u>	705	(19.3)	523	(14.3)	-13	(-0.4)	196	( 5.4)
ME	92	(30.1)	43	(14.1)	26	( 8.6)	23	( 7.5)
NH	97	(43.0)	34	(15.1)	47	(20.6)	17	( 7.3)
VT	45	(33.9)	23	(17.1)	12	( 9.2)	10	( 7.6)
MA	265	(15.1)	241	(13.7)	-65	(-3.7)	90	( 5.1)
RI	45	(15.5)	42	(14.5)	-15	(-5.2)	18	( 6.3)
CT	160	(17.1)	139	(14.9)	-18	(-1.9)	38	( 4.1)
<u>EAST NORTH CENTRAL</u>	2,258	(18.2)	2,186	(17.6)	-630	(-5.1)	701	( 5.6)
OH	541	(16.4)	583	(17.7)	-229	(-6.9)	186	( 5.7)
IN	324	(20.1)	291	(18.1)	-57	(-3.5)	90	( 5.6)
IL	541	(15.4)	550	(15.7)	-195	(-5.6)	186	( 5.3)
MI	532	(20.0)	541	(20.3)	-148	(-5.5)	138	( 5.2)
WI	320	(24.0)	221	(16.6)	-1	(-0.1)	101	( 7.5)
<u>WEST NORTH CENTRAL</u>	1,036	(20.0)	751	(14.5)	-34	(-0.7)	318	( 6.2)
MN	285	(24.6)	197	(17.0)	13	( 1.2)	74	( 6.4)
IA	157	(17.4)	122	(13.5)	-20	(-2.3)	55	( 6.1)
MO	268	(17.6)	198	(13.0)	-7	(-0.4)	77	( 5.1)
ND	47	(25.9)	33	(18.0)	-5	(-2.7)	19	(10.6)
SD	43	(21.1)	32	(15.6)	-7	(-3.6)	18	( 9.0)
NB	97	(20.4)	66	(13.8)	-1	(-0.1)	32	( 6.7)
KS	141	(19.3)	105	(14.4)	-8	(-1.1)	43	( 5.9)

\*State numbers may not add up to regional totals because of rounding.

Components of Change in Total Number of Households, 1970-1980, for Regions and States (Thousands)

Census Division and States	Change in Number of Households and Percent Growth by Components of Change							
	Total Changes 1970-80 (%)	Due to Age Structure (%)	Migration (%)	Due to Household Formation (%)	Due to Household Formation (%)	Due to Household Formation (%)		
<u>MID ATLANTIC</u>	1,219	(10.3)	1,539	(13.0)	-794	(-6.7)	474	(4.0)
NY	397	(6.7)	748	(12.6)	-580	(-9.8)	228	(3.8)
NJ	328	(14.7)	301	(13.5)	-52	(-2.3)	79	(3.5)
PA	495	(13.3)	490	(13.2)	-163	(-4.4)	168	(4.5)
<u>SOUTH ATLANTIC</u>	3,691	(39.0)	1,670	(17.6)	1,454	(15.3)	567	(6.0)
DE	42	(25.3)	33	(20.0)	2	(0.9)	7	(4.3)
MD	288	(24.5)	231	(19.6)	0	(0.0)	57	(4.9)
DC	-10	(-4.0)	43	(16.2)	-61	(-23.0)	7	(2.8)
VA	462	(33.1)	288	(20.7)	88	(6.3)	85	(6.1)
WV	138	(25.0)	79	(14.3)	20	(3.7)	39	(7.0)
NC	530	(35.0)	323	(21.3)	99	(6.5)	109	(7.2)
SC	292	(39.5)	183	(24.8)	68	(9.2)	41	(5.6)
GA	497	(36.2)	292	(21.3)	117	(8.5)	88	(6.4)
FL	1,452	(63.4)	198	(8.6)	1,121	(48.9)	133	(5.8)
<u>EAST SOUTH CENTRAL</u>	1,167	(30.0)	692	(17.8)	221	(5.7)	254	(6.5)
KY	276	(27.9)	167	(16.9)	45	(4.5)	64	(6.5)
TN	398	(32.7)	207	(17.0)	113	(9.3)	79	(6.5)
AL	303	(29.2)	194	(18.7)	41	(4.0)	68	(6.6)
MS	190	(29.6)	125	(19.5)	22	(3.4)	43	(6.7)



Components of Change in Total Number of Households, 1970-1980, for Regions and States (Thousands)

Census Division and States	Change in Number of Households and Percent Growth by Components of Change					
	Total Changes 1970-80 (%)	Due to Age Structure (%)	Due to Migration (%)	Household Formation (%)	Due to Migration (%)	Due to Household Formation (%)
<u>WEST SOUTH CENTRAL</u>	2,331	1,117	776	439	(13.0)	( 7.3)
AR	203	81	82	40	(13.2)	( 6.5)
LA	364	236	38	89	( 3.6)	( 8.5)
OK	261	119	90	52	(10.6)	( 6.1)
TX	1,503	681	565	257	(16.4)	( 7.5)
<u>MOUNTAIN</u>	1,470	54	720	209	(28.5)	( 8.3)
MT	68	40	12	16	( 5.5)	( 7.3)
ID	105	43	44	18	(20.1)	( 8.3)
WY	61	20	29	11	(28.0)	(10.9)
CO	366	143	162	61	(23.3)	( 8.8)
NM	153	75	53	25	(18.3)	( 8.7)
AZ	423	106	273	43	(50.6)	( 8.0)
UT	150	82	46	21	(15.6)	( 7.1)
NV	144	31	100	13	(62.3)	( 8.3)
<u>PACIFIC</u>	2,920	1,525	1,111	283	(12.8)	( 3.3)
WA	434	198	163	73	(14.7)	( 6.6)
OR	300	106	143	51	(20.7)	( 7.4)
CA	2,045	1,141	762	142	(11.6)	( 2.2)
AK	52	28	13	11	(15.9)	(14.0)
HI	89	52	30	7	(14.8)	( 3.3)
<u>TOTAL U.S.</u>	16,796	10,54	2,810	3,442	( 4.4)	( 5.4)

Source: Joint Center calculations.