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PROJECTIONS OF THE NUMBER OF HOUSEHOLDS, BY STATES JULY 1, 1970 AND 1975

This report presents two series of projections for 1970 and 1975 of the number of households, by State. These are the first State household projections published by the Bureau of the Census and are illustrative. They have been prepared in response to requests from users of household data for figures on future numbers of households in each State that would be consistent with the national household projections and the State population projections published by the Bureau of the Census in 1967.

The projections were prepared by distributing the projected national total number of households by States, on the assumption that (1) the future population of the States will be as indicated in the projections of State populations, (2) differences between States in the percentages of adults who are household heads will persist into the future, and (3) changes in the percentages of adults who are household heads will be the same for each State as is projected for the Nation. A full description of the method and an evaluation of the assumptions are given below.

The projections show an increase from about 57.3 million households in the United States in July 1965 to between 62.4 and 63.3 million in July 1970, and 68.2 to 70.0 million in July 1975. California leads all the States in the projected number of

households, with about 6.8 or 6.9 million in 1970, and 7.9 to 8.1 million in 1975. California also leads in the number of husband-wife households, with about 4.6 or 4.7 million in 1970, and 5.3 or 5.4 million in 1975. Alaska has the smallest projected number of households--71,000 to 73,000 in 1970, and 79,000 to 81,000 in 1975.

Differences between States with respect to projected increase in the number of households are largely attributable to differences in projected population growth. Thus, California, with the largest projected population increase, also leads all the States in projected increase in the number of households, with a gain of between 969,000 and 1.1 million between 1965 and 1970 and a gain of 2.1 to 2.3 million for the ten-year period 1965 to 1975. Wyoming has the smallest amount of increase for the same two periods, with projected increases of about 6,000 or 7,000 by 1970, and 14,000 to 18,000 by 1975.

However, other factors may cause the projected trend in the number of households in a State to differ from the trend of population. For example, West Virginia shows a slight increase in the projected number of households in spite of a slight decline in projected total population. This is attributable, in part, to the anticipated aging of the population of West Virginia. The projected population decline occurs among persons under

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U.S. DEPARTMENT OF COMMERCE, Alexander B. Trowbridge, Secretary

20 years old, very few of whom form their own households, whereas the adult population shows a slight increase in the projections.

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The figures for States in this report should be used with consideration for the limitations imposed by the method of projection. (See below.)

PROJECTION SERIES

Household projection Series 1 and 2 for the United States from Current Population Reports, Series P-25, No. 360, "Projections of the Number of Households and Families, 1967 to 1985," and State population projection Series I-B from Current Population Reports, Series P-25, No. 375, "Revised Projections of the Population of States, 1970 to 1985," were utilized in the development of the two State household projection series shown in this report. State household projections Series 1 is consistent with national household Series 1, and State household Series 2 is consistent with national household Series 2. Only one series of State population projections was used for this report because, for the period shown, the differences between the State population series are small; important differences between the series of State population projections in P-25, No. 375, appear only in the period after 1975, which is not covered in this report.

METHOD OF PROJECTION

The method for preparing the projections of households by State shown in this report was generally as follows: Percentages of persons who were household heads ("headship rates") and other relevant percentages were developed from the 1960 Census, by age, by State. These percentages were applied to the State population projections, by age, to obtain preliminary projections of the number of households by State, within each age group. These preliminary projections were then adjusted to the projected national number of households by age (projection Series 1 and 2, shown in report Series P-25, No. 360) to yield the final projections by States.

The specific steps involved are shown below:

1. Data for both sexes combined from the 1960 Census were posted by State, by age (14 to 19, 20 to 24, 25 to 44, 45 to 64, and 65 and over) for the following categories:

(t) Total persons in age group

(a) Heads of husband-wife primary families

(b) Other primary family heads

(c) Primary individuals

(d) Household members not heads

(e) Persons not in households

2. The following household headship rates, and other proportions, were calculated by State, by age:

$$(\underline{a}), (\underline{b}), (\underline{c}), (\underline{d}), (\underline{e})$$

 $(t) (t) (t) (t) (t)$

3. State population projections for 1970 and 1975 by age (as above) were posted.

4. Preliminary projections of the 1970 and 1975 population in each class, (a) to (e), by age; by State were calculated (step 2 x step 3).

5. The preliminary projections (step 4) were summed over all States to United States totals by age, for each class, (a) to (e).

6. Projections for the United States for 1970 and 1975 (Series 1 and 2) by age, for each class, (a) to (e), were posted.

7. Adjustment factors by age, for each class, (a) to (e), were calculated (step 6 ÷ step 5).

8. Adjustment factors derived in step 7 were applied to preliminary projections of the 1970 and 1975 population in each class, (a) to (e), by age, by State (step 7 x step 4). The overall effect of this step was an upward adjustment of between 4.2 and 5.7 percent for 1970, and between 5.4and 8.1 percent for 1975, in the preliminary projections of the total number of households (from step 5).

Other possible methods by which these projections might have been prepared, such as separate projection of changes in headship rates by States, were considered to be beyond the scope permitted by available time and resources. Such refinement of the method might have reduced the size of the needed adjustment.

EVALUATION OF THE METHOD

The foregoing method assumes the national household projections and the State population projections cited above. In joining these to produce State household projections, the method makes two further assumptions: (1) It assumes that the interstate differences in household headship rates as shown in the 1960 Census will persist into the future; (2) it assumes that changes in headship rates by States will occur uniformly, that is, that between 1960 and 1975 the trends in the headship rates, by age, will be the same for each State as for the United States.

The assumptions underlying the national household projections were described in Series P-25, No. 360, and the assumptions underlying the State population projections were described in Series P-25, No. 375. The validity of the assumptions by which these were joined to produce State household projections was checked in the following manner:

A study was made of the success with which the number of households by States in 1960, as given by the Census, could be estimated from the information on the 1960 Census population by States and the 1950 Census headship rates, by States, using a method corresponding to the method described above. The 1950 headship rates were applied to 1960 Census State population figures to obtain preliminary estimates of the number of households by State, within each age group. These preliminary 1960 estimates were then adjusted proportionately so that they added to the total number of households for the United States (by age of head) as given in the 1960 Census. (This step involves the assumption of uniform changes in headship rates.) The effect of this step was an upward adjustment of 9.9 percent in the preliminary estimates of the number of households with the adjustment varying according to age of head and type of household.

The adjusted 1960 estimates were then compared with the 1960 Census figures on households by State. The results of this study are shown in table A. The difference between the adjusted 1960 estimates and the 1960 Census was less than 4 percent in all but a few States. The average (mean) deviation disregarding sign was 2.7 percent over all States. These results suggest that, for most States, the assumptions inherent in the estimating method held reasonably true for the 1950-to-1960 period.

Comparison of the preliminary 1960 estimate and the adjusted 1960 estimate with the number of households for each State given in the 1960 Census indicated that making the adjustment to national household totals provided an improved estimate for the great majority of States. For 43 out of 50 States, and for the District of Columbia, the adjusted 1960 estimate was definitely better than the preliminary estimate; that is, the adjusted estimate was closer to the 1960 Census figure for the State than was the preliminary estimate. For six States, the adjusted estimate was worse than the preliminary estimate and for one other State the adjusted estimate was not much better than the preliminary estimate. However, for none of these seven States did the adjusted estimate differ by more than 7.4 percent from the number of households given in the 1960 Census.

TABLE A. --DISTRIBUTION OF STATES BY PERCENT DEVIATION OF 1960 ESTIMATE OF HOUSEHOLDS FROM 1960 CENSUS NUMBER OF HOUSEHOLDS

Percent deviation of 1960 estimate from 1960 Census figure	Total house- holds	Husband- wife house- holds
Total, 50 States and the District of Columbia	51	51
0 to 1.9	24 15 7 4 1 2 68	22 17 8 2 2

As noted above in the section on "Method of projection," the calculations were performed in considerable detail by type of household and age of head. It is believed that this feature of the method makes the projections shown here better than they would have been in the absence of this However, the detailed numbers by type detail. of household and age of head that were generated in the process of preparing the totals shown in this report are not regarded as themselves having sufficient reliability to merit publication. This judgment is based on an evaluation of detail by type of household and by age of head that was made in connection with the study of the 1960 estimates, reported above.

RELATED REPORTS

Statistics on household projections for the United States are presented in Current Population <u>Reports</u>, Series P-25, No. 360. Population projections by State are presented in Series P-25, No. 375. The 1965 estimates of the number of households by State shown in this 'report were developed by a procedure similar to that used for the projections. These estimates were presented in Series P-25, No. 356, along with corresponding figures for 1950 and 1960 and figures on average annual rates of change.

DEFINITIONS AND EXPLANATIONS

Household.--A household consists of all the persons who occupy a housing unit. A house, an

apartment or other group of rooms, or a single room, is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters; that is, when the occupants do not live and eat with any other persons in the structure and there is either (1) direct access from the outside or through a common hall or (2) a kitchen or cooking equipment for the exclusive use of the occupants.

A household includes the related family members and all the unrelated persons, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of two to five unrelated persons sharing a housing unit as partners, is also counted as a household. The count of households excludes group quarters. A "husband-wife" household is a household in which the head is a married man whose wife lives with him. The other types of households are those in which the head is a family head with no spouse present, and those in which the head lives alone or with nonrelatives only (primary individuals). While detail on these other types of households was used in preparing the totals shown in this report, it is not being made available separately, for reasons stated in the section above on "Evaluation of the method."

ROUNDING OF ESTIMATES

Estimates presented in the tables of this report have been rounded to the nearest thousand without being adjusted to group totals which are independently rounded. Percentages are based on unrounded numbers.

Table 1 .-- PROJECTIONS OF THE NUMBER OF HOUSEHOLDS, BY STATES, FOR THE UNITED STATES, 1970 AND 1975, WITH ESTIMATES FOR 1965

	Estimate, July 1, 1965	Projections			
Region, division, and State		July	l, 1970	July 1, 1975	
		Series 1	Series 2	Series l	Series 2
United States	57,300,000	63,300,000	62,425,000	70,001,000	68,229,000
REGIONS:	14 311 000	15 / 53 000	15 258 000	16 7713 000	16 321 000
North Central	16,069,000	17,266,000	17.033.000	18,708,000	18,242,000
South	17,093,000	19,139,000	18,874,000	21,320,000	20,792,000
West	9,827,000	11,442,000	11,260,000	13,260,000	12,875,000
NORTHEAST:	3 279 000	3 534 000	3 /90 000	3 825 000	3 737 000
Middle Atlantic	11,032,000	11,919,000	11,768,000	12,888,000	12,584,000
NORTH CENTRAL:					
East North Central	11,254,000	12,165,000	12,002,000	13,266,000	12,939,000
west North Central	4,815,000	5,101,000	5,031,000	5,442,000	5,302,000
SOUTH: South Atlantic	8 117 000	9 195 000	9 068 000	10 365 000	10 110 000
Bast South Central	3,560,000	3,904,000	3,854,000	4,252,000	4,154,000
West South Central	5,415,000	6,039,000	5,952,000	6,703,000	6,529,000
MEST:					
Pacific	2,224,000	2,564,000	2,525,000	2,941,000	2,860,000
WELL ENCLAND.	1,000,000	0,010,000	0,122,000	10,517,000	2030213000
Maine	284,000	298,000	294,000	314,000	307,000
New Hampshire,	198,000	221,000	218,000	246,000	240,000
Massachusetts.	1588,000	1,24,000	1 659 000	1 793 000	-131,000
Rhode Island	266,000	281,000	278,000	298,000	291,000
Cönnecticut	829,000	930,000	918,000	1,039,000	1,016,000
MIDDLE ATLANTIC:	C (00 000)	6 000 000	r 000 000	6 500 000	< 105 000
New Jersey	1,983,000	2:221.000	2,195,000	2,478,000	2,425,000
Pennsylvania	3,440,000	3,617,000	3,575,000	3,818,000	3,736,000
EAST NORTH CENTRAL:			-		
Ohic	3,000,000	3,257,000	3,214,000	3,574,000	3,488,000
Illinois.	3,224,000	3,459,000	3,411,000	3,743,000	3.648.000
Michigan	2,380,000	2,590,000	2,555,000	2,837,000	2,767,000
Wisconsin	1,193,000	1,282,000	1,266,000	1,390,000	1,357,000
MEST NORTH CENTRAL:	1 035 000	1 110 000	1 005 000	1 205 000	1 1774 000
Iowa	848,000	881,000	869,000	924,000	901,000
Missouri	1,412,000	1,503,000	1,482,000	1,608,000	1,566,000
South Dakota	181,000	191,000	188,000	202,000	197,000
Nebraska	445,000	469,000	463,000	496,000	483,000
Kansas	698,000	742,000	732,000	793,000	772,000
SOUTH ATLANTIC:	7/2 000				
Maryland	141,000	160,000	157,000	181,000	177,000
District of Columbia	260,000	277,000	272,000	308,000	297,000
Virginia.	1,201,000	1,356,000	1,338,000	1,515,000	1,479,000
North Carolina.	1.334.000	1,490,000	1:471.000	1.642.000	1,606,000
South Carolina	661,000	737,000	728,000	812,000	794,000
Floride	1,200,000	1,349,000	1,330,000	1,501,000	1,465,000
ZAST SOUTH OFFIT AT .	,0,000	2, 274,000	2, 242,000	2,202,000	2,222,000
Kentucky.	897,000	966,000	953,000	1,031,000	1,007,000
Tennessee	1,098,000	1,217,000	1,201,000	1,333,000	1,303,000
Mississippi.	960,000	1,060,000	1,046,000	721,000	703.000
VEST SOUTH CENTRAL:	005,000	001,000		,,	,
Arkansas	. 570,000	630,000	621,000	683,000	666,000
Louisiana.	977,000	1,089,000	1,074,000	1,220,000	1,189,000
Texas.	3.084.000	3,470,000	3,419,000	3,885,000	3,784,000
MOUNTAIN:	,,	.,,	_,,	-,,,	, ,
Montana	212,000	228,000	225,000	248,000	241,000
Wyoming	206,000	226,000	223,000	249,000	242,000
Colorado	588,000	670.000	660.000	760.000	739.000
New Mexico	267,000	300,000	296,000	345,000	336,000
Utah.	443,000	541,000	533,000	648,000	630,000
Nevada	134.000	175.000	172.000	208,000	202,000
ACIFIC:	,		,		
Washington	940,000	1,025,000	1,009,000	1,127,000	1,095,000
California	622,000	700,000	689,000	781,000	759,000
Alaska.	64,000	73,000	71,000	81,000	79,000
HUWALL	170,000	192,000	189,000	211,000	206,000

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Table 2 .- PROJECTIONS OF THE NUMBER OF HUSBAND-WIFE HOUSEHOLDS BY STATES, FOR THE UNITED STATES, 1970 AND 1975, WITH ESTIMATES FOR 1965

	Estimate, July 1, 1965	Projections			
Region, division, and State		July 1, 1970 July 1, 1975			, 1975
		Series 1	Series 2	Series 1	Series 2
United States	41,590,000	45,556,000	45,053,000	50,020,000	49,087,000
REGIONS: Northeast North Central South West.	10,195,000 11,884,000 12,596,000 6,915,000	10,927,000 12,666,000 14,023,000 7.940.000	10,816,000 12,526,000 13,862,000 7,850,000	11,748,000 13,655,000 15,518,000 9,100,000	11,542,000 13,398,000 15,220,000 8,927,000
NORTHEAST: New England Middle Atlantic	2,351,000 7,844,000	2,521,000 8,406,000	2,494,000 8,321,000	2,721,000 9,027,000	2,673,000 8,870,000
NORTH CENTRAL: East North Central	8,358,000 3,526,000	8,963,000 3,703,000	8,865,000 3,661,000	9,724,000 3,931,000	9,543,000 3,856,000
SOUTH: South Atlantic Bast South Central West South Central	5,949,000 2,666,000 3,981,000	6,699,000 2,918,000 4,405,000	6,623,000 2,885,000 4,354,000	7,499,000 3,166,000 4,853,000	7,356,000 3,106,000 4,758,000
WEST: Mountain Pacífic	1,649,000 5,266,000	1,879,000 6,062,000	1,857,000 5,993,000	2,135,000 6,964,000	2,094,000 6,833,000
NEW ENGLAND: Maine New Hampshire Vermont Massachusetts Rhode Island Connecticut	208,000 145,000 84,000 1,108,000 1.87,000 618,000	217,000 163,000 90,000 1,165,000 196,000 690,000	214,000 161,000 89,000 1,153,000 194,000 683,000	228,000 181,000 98,000 1,240,000 207,000 769,000	223,000 177,000 96,000 1,218,000 203,000 735,000
MIDDLE ATLANIIC: New York. New Jersey. Pennsylvania.	3,859,000 1,484,000 2,502,000	4,142,000 1,653,000 2,612,000	4,100,000 1,636,000 2,585,000	4,449,000 1,836,000 2,741,000	4,372,000 1,804,000 2,693,000
EAST NORTH CENTRAL: Ohio. Indiana. Illinois. Michigan. Wisconsin.	2,251,000 1,103,000 2,310,000 1,799,000 895,000	2,427,000 1,187,000 2,454,000 1,941,000 954,000	2,400,000 1,174,000 2,427,000 1,920,000 943,000	2,654,000 1,291,000 2,637,000 2,113,000 1,029,000	2,604,000 1,266,000 2,588,000 2,074,000 1,010,000
WEST NORTH CENTRAL: Minesota Nowa. Missouri. North Dakota. South Dakota. Nebraska. Kansas.	756,000 629,000 1,007,000 1,38,000 1,48,000 331,000 518,000	805,000 648,000 1,063,000 144,000 1.52,000 345,000 546,000	796,000 641,000 1,051,000 142,000 150,000 341,000 540,000	871,000 677,000 1,1.30,000 1.52,000 1.59,000 363,000 580,000	854,000 664,000 1,08,000 149,000 156,000 356,000 568,000
SOUTH ATLANTIC: Delaware Maryland. District of Columbia. Virginia. West Virginia. North Carolina. South Carolina. Georgia. Florida.	106,000 733,000 132,000 390,000 1,020,000 487,000 888,000 1,295,000	119,000 832,000 1,38,000 401,000 1,137,000 1,137,000 542,000 996,000 1,527,000	117,000 823,000 136,000 996,000 397,000 1,124,000 536,000 985,000 1,509,000	1.34,000 942,000 1.49,000 1,119,000 1,247,000 1,247,000 1,103,000 1,797,000	131,000 925,000 1,46,000 405,000 1,224,000 584,000 1,082,000 1,762,000
EAST SOUTH CENTRAL: Kentucky. Tennessee. Alabama. Mississippi.	676,000 829,000 71.8,000 443,000	726,000 917,000 792,000 484,000	718,000 906,000 783,000 478,000	772,000 1,000,000 868,000 525,000	758,000 982,000 851,000 515,000
WEST SOUTH CENTRAL: Arkansas. Louisiana. Oklahoma. Texas.	424,000 700,000 566,000 2,290,000	467,000 777,000 607,000 2,554,000	461,000 768,000 600,000 2,524,000	505,000 865,000 647,000 2,836,000	495,000 849,000 634,000 2,781,000
MOUNTAIN: Montana. Idaho. Wyoming. Colorado. New Mexico. Arizona. Utah. Nevada.	153,000 158,000 75,000 204,000 327,000 212,000 93,000	163,000 172,000 79,000 480,000 227,000 394,000 243,000 121,000	161,000 170,000 78,000 475,000 224,000 390,000 241,000 119,000	176,000 188,000 85,000 259,000 468,000 279,000 141,000	172,000 184,000 530,000 254,000 459,000 273,000 138,000
ACIFIC: Washington. Oregon. California. Alaska. Hawaii.	666,000 452,000 3,980,000 47,000 122,000	715,000 505,000 4,656,000 52,000 135,000	706,000 499,000 4,603,000 51,000 133,000	778,000 558,000 5,424,000 57,000 146,000	763,000 548,000 5,322,000 56,000 1,44,000