

NITED STATES POPULATION PROJECTIONS FOR OASDHI COST ESTIMATES

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FOREWORD

Actuarial Study No. 72 represents the population projections that underlie the long-range cost estimates for the Old-Age, Survivors, and Disability Insurance program, which were included in the 1974 report of the OASDI Board of Trustees to the Congress.

In accordance with the recommendations of the 1971 Advisory Council on Social Security only one set of assumptions were used in the projections.

These projections were developed in consultation with the Bureau of the Census. We are grateful to the staff of that organization for their assistance, in particular, for their advice with respect to fertility and migration assumptions. This does not mean that the two agencies will show the same figures in their population projections. The projections prepared by the Bureau of the Census are generally for only the United States (the 50 states and D.C.) and include the armed forces overseas, while those of the Office of the Actuary include also Puerto Rico, the Canal Zone, the Virgin Islands, certain civilians overseas, and also contain an allowance for net census undercount.

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A. Introduction

The first step in preparing long-range cost estimates for the Old-Age, Survivors, Disability, and Health Insurance program is a projection into the future of the United States population by age and sex. These projections are carried far into the future.

In 1934-35, when the Committee on Economic Security made its original cost estimates for the old-age benefits program to be incorporated in the Social Security Act, no suitable population projection was available. Therefore, the development of a projection was of primary importance. The resulting projection, including the then 48 states, the District of Columbia, Alaska, and Hawaii, since these areas were to be covered under the proposed program, was based on rather simple assumptions -- namely, the continuance of mortality rates according to 1920-29 patterns and birth rates such that the total population would follow an arbitrary growth curve, leveling off at 150 million after 1975. projection is summarized on page 207 of Issues In Social Security, A Report to the Committee on Ways and Means of the House of Representatives by the Committee's Social Security Technical Staff, January 1946.

After the passage of the Social Security Act, cost studies made in 1937 were based on a set of more comprehensive population projections made by Thompson and Whelpton for the National Resources Committee (Population Statistics, National Data, October 1937). The published data were given in detail for six projections based on varying assumptions as to fertility, mortality, and immigration. New cost estimates for the old-age insurance plan (presented in Actuarial Study No. 8) were developed on the basis of the "medium" NRC projection, which involved medium fertility, medium mortality, and 100,000 net annual immigration. These new cost estimates did not supersede the original ones but rather supplemented them by indicating the potential range in costs.

The cost estimates prepared subsequently through the World War II years (Actuarial Study No. 17 and Actuarial Study No. 19) were based on the two population projections developed for the original program. New cost estimates were developed in 1946 (Actuarial Study No. 23) to take into account recent wage trends and the then latest population data. The population projections used were presented in Actuarial Study No. 24. The projections prepared by Thompson and Whelpton for the National Resources Planning Board (Estimates of Future Population

of the United States, 1940-2000, August 1943) were not directly used because, by 1946, considerable data as to combat losses and wartime fertility were available. Accordingly, the new projections of the Social Security Administration utilized the NRC base but allowed for subsequent actual experience.

Thompson and Whelpton subsequently revised their projections in cooperation with the Bureau of the Census to allow for actual wartime experience as to mortality and fertility.1/

The population projections presented in <u>Actuarial Study No. 33</u> were used as the basis for cost estimates for the Old-Age and Survivors Insurance system prepared in 1953 and 1954. These projections extended coverage of the population projections to correspond to that of the Old-Age and Survivors Insurance system, which by then included Puerto Rico and the Virgin Islands (and, in addition, Americans employed outside the United States by American employers).

^{1/} Population Special Reports, Series P-46, No. 7 September 1946. Subsequently, to take account of postwar experience, revised short-range population estimates (up to 1960) were released by the Bureau of the Census (Current Population Reports, Series P-25, No. 18, February 1949, and No. 43, August 1950). In 1953, the Bureau of the Census published four projections to 1975 involving four different fertility assumptions (Current Population Reports, Series P-25, No. 78, August 1953). Two years later, these projections were revised (Current Population Reports, Series P-25, No. 123, October 1955), dropping the lowest fertility assumption and adding a new highest fertility assumption. These various projections of the Bureau of the Census employed only a single set of mortality assumptions, which extrapolated to 1960 the mortality decline of the 1940's, but assumed no further improvement after 1960.

New population projections were prepared in 1957 and presented in <u>Actuarial Study No. 46.2</u>/ These projections were used for the Old-Age, Survivors, and Disability Insurance cost estimates prepared in 1958, 1961, 1963, and 1965, and also for cost estimates of the Health Insurance program enacted in 1965.

In order to take into account new data on fertility, mortality, and population, new population projections were prepared in 1966 and presented in Actuarial Study No. 62.3/ These projections were used for the Old-Age, Survivors, Disability, and Hospital Insurance cost estimates prepared in the period 1966-73.

The present study establishes a new set of population bases for the Old-Age, Survivors, Disability and Hospital Insurance system. New projections are desirable to take into account the recent substantial decline in fertility, recent mortality experience, and also the results of the 1970 census.

^{2/} Actuarial Study No. 46 postulated two different sets of mortality rates (low-mortality and high-mortality) for the year 2000. Under both projections the mortality rates were interpolated for years between 1954 and 2000. The postulated high mortality rates or an average of the low and high rates were used by the Bureau of the Census in its population projections of Series P-25, No. 187, November 1958; No. 241, January 1962; No. 251, July 1962; No. 286, July 1964; No. 329, March 1966; No. 345, July 1966; No. 359, February 1967; No. 362, March 1967; and No. 375, October 1967.

^{3/} Actuarial Study No. 62 also postulated two different sets of mortality rates for the year 2000. The mortality rates were interpolated for years between 1965 and 2000, and assumed to remain level after the year 2000. A mix of the high and low rates were used by the Bureau of the Census in its population projections of Series P-25, No. 381, December 1967; No. 448, August 1970; No. 470, November 1971; and No. 493, December 1972.

B. Methodology and Assumptions

The population projection presented in this report has been prepared by a refinement of the method used by Thompson and Whelpton in their two reports cited previously and by this office in previous projections. The method used here begins with an estimated population at a starting date, subdivided by single year of age and sex. No subdivision by race is made in this projection, as there is no need for such data for Old-Age, Survivors, Disability, and Hospital Insurance cost estimates. Each single-year-of-age cohort is then projected into the future by the use of yearly survival rates.

At the same time, the number of births within the year is obtained by applying age-specific birth rates (i.e., births per year per 1,000 women of a specified age) to the female population on both ends of the year and taking the average of the population number of births. These births are then subdivided by sex according to a fixed sex ratio at birth (a very stable factor) and are projected by survival factors to the end of the year. They are then projected to the end of the following years in the same fashion as the population at other ages. Carrying these various steps forward, population estimates are developed by single year of age and sex for all years in the future.

To take immigration into consideration, the survivors of the postulated net immigrants during a year are added to the survivors (at the end of the year) of the population existing at the beginning of the year. The combined total is then projected into the future.

Previous studies have presented two or more separate population projections based on differing mortality and fertility assumptions. Only one set of projections is presented in this study since the 1971 Advisory Council on Social Security Financing recommended that a single estimate be prepared on the long-range cost of the program.

Starting Population

The starting point for the projections is the estimated United States population on July 1, 1973. Geographically it includes the 50 states, D.C., Puerto Rico, the Virgin Islands, Guam, and American Samoa, since these areas are covered by the OASDHI system. An attempt has been made to include in the projections those American citizens temporarily outside these areas. The figures by area or category are as follows:

Area or Category

Residents of the 50 states and DC	
Including Armed Forces Overseas,	
Adjusted for Net Undercount	215,812
Puerto Rico	2,856
American Samoa, Guam, and the Virgin	•
Islands	189
Federal Civiliam Employees and	
Dependents of all Federal Employees	
Overseas	429
Crews of Merchant Vessels	16
Other Citizens Overseas	236
Total	219,538

The Bureau of the Census prepared an estimate as of July 1, 1973 of the population of the United States, including Armed Forces overseas, and also including an adjustment for net undercount. Since this estimate did not provide any subdivision by age of the population aged 85 and over, the needed age distribution of this group was assumed to be the same as in the latest available tabulation of the population on the rolls of the Medicare program. The populations for Puerto Rico, American Samoa, Guam, and the Virgin Islands were estimated by projecting them to July 1, 1973, based on the 1970 Census figures. For the remaining three population groups (Federal civiliam employees and dependents of all Federal employees overseas, crews of merchant vessels, and other citizens overseas), the figures in the 1970 Census were used without modification.

There is an overlap between (a) the population of Puerto Rico and other outlying areas and (b) the estimated Armed Forces overseas and civilian Federal employees overseas and their dependents, but this is believed to be small and to be partially offset by the relatively large net undercount of the other citizens in the 1970 census.

Fertility Assumptions

The most hazardous portion of population projections is the fertility assumptions. Fertility rates have fluctuated widely in the past and could vary over a wide range in the future, which would result in significant variation in the projected populations. Table 1

shows crude birth rates (number of live births in a year divided by the mid-year population) and birth rates by age of mother (number of live births in a year to mothers of given ages divided by the mid-year female population at those ages) for various past years and the assumed rates for future years. For years before 1959, the rates have been adjusted on the basis of tests of completeness of registration made in conjunction with the censuses of 1940 and 1950, while for years after 1959, they are shown without adjustment. All of these rates are shown without adjustment for net underenumeration in the census.

Examination of fertility experience in the long-range past is of only limited value in forming hypotheses about the future. Birth rates for the entire population of the United States are available only since 1933. Those available for the period 1915-32 relate to the gradually increasing Birth Registration Areas.4/Fertility declined from 1915 to a minimum in the middle 1930's. A rapid rise occurred after World War II and high birth rates continued throughout the 1950's, with a peak in 1957. But then birth rates fell steeply in the 1960's and further into the 1970's.

The year-by-year pattern followed in the last two decades by the total fertility rates—that is, the number of children a woman would have by the end of her child-bearing period, if mortality is disregarded and if she were to experience the age-specific birth rates observed in the year—can be seen from the table on the next page.

Fertility in 1972 and 1973 was below replacement level; that is, the level which would eventually lead to a stationary population in the absence of migration. Fertility may continue to decline in the near future, but for long-term projection, this office believes that it would be most reasonable to assume that eventually fertility will fluctuate around a replacement level of 2.1 children per woman. We believe that some time in the future the total fertility rate will start increasing, but that it will not return to the high levels experienced in the 1950's or early 1960's. Married couples now have a significant degree of control over the size of their families. More and better birth control methods should be expected in the future. It is possible,

⁴/ The National Center for Health Statistics has prepared estimates of the birth rates for the total United States for years before 1933.

Total Fertility Rates; United States, 1948-73

<u>Year</u>	Total Fertility Rate	Year	Total Fertility Rate
1948	3.11	1961	3.63
1949	3.11	1962	3.47
1950	3.09	1963	3.33
1951	3.27	1964	3.21
1952	3.36	1965	2.93
1953	3.42	1966	2.74
1954	3.54	1967	2.57
1955	3.58	1968	2.48
1956	3.69		
		1969	2.46
1957	3.77	1970	2.48
1958	3.70	1971	2.28*
1959	3.71	1972	2.02*
1960	3 . 65 ,	1973	1.90*

^{*} Preliminary value

although perhaps unlikely, that we may be able to conquer the problems of limitations in natural resources on our planet, as well as those associated with cleaner environments and that a large family may again become fashionable. But even then, fertility should not return to the previous high levels, since those unplanned children that were born in the past would be to a large extent nonexistent in the future.

It should also be observed that recent surveys on fertility expectations 5/ suggest that our young females will have 2.1 children, on the average.

It may be observed from the table that the total fertility rate has been declining since 1957. There was an indication that the rate would tend to level off at about 2.5 children per woman in the late 1960's, but a new downturn started in 1971. Although this new decline in the 1970's can be substantiated only in terms of preliminary figures, it is believed that it is a real and significant new trend that should be recognized in social security cost estimates.

For the projections in this study, the birth rates were assumed to approach, in a cohort manner, an ultimate total fertility rate of 2.1 children per woman. This level would be reached in 2008. At our request, the estimated birth rates by single year of age for single years into the future were prepared by the Bureau of the Census. In the preparation of the rates, birth rates corresponding closely to the actual present rates were assumed for fiscal year 1974. A set of ultimate rates yielding the assumed total fertility rate of 2.1 were also assumed. In a cohort manner, age 14 reaches its ultimate rate in 1974, age 15 in 1975, and so on to age 48 in 2008. Between 1974 and the year the ultimate rate is reached, the birth rate at each age was interpolated linearly. Table 2 shows the 1974 and ultimate birth rates.

Shown in Table 9 are the estimated number of yearly births and crude birth rates for selected years. It should be noted that these are dependent not only on the birth rates used, but also on the population to which they are applied.

^{5/} Bureau of the Census, <u>Current Population Reports</u>, Series P-20, No. 248, "Birth Expectations and Fertility: June 1972", April 1973.

It was assumed that the sex distribution of births in the future would be the same as that of the recent past-that is, 105 males per 100 females. It is known that the proportion of males tends to decrease slightly with parity, and therefore with increasing age of mother, but for simplicity the same ratio was used for all births.

Mortality Assumption

One set of mortality rates varying by age, sex, and calendar year were developed. Hypothetical mortality rates by age and sex were developed for the year 2000. These rates were calculated assuming certain reductions in mortality for different causes. The procedure for obtaining the single-year survival rates is described in detail in the following paragraphs.

The postulated mortality rates for the year 2000 were arrived at by considering death rates by age and sex, in 10 broad groups of causes of death, as obtained for 1968 from the <u>Vital Statistics of the United States</u> prepared by the <u>National Center for Health Statistics</u>. To these death rates were applied the assumed percentage reductions shown in Tables 3A and 3B and totaled to obtain average reductions in mortality by age and sex for all causes combined (these postulated rates are also shown in Table 4). The average reductions thus obtained were applied to the 1972 death rates to obtain the postulated death rates for the year 2000.

The causes of death were grouped according to the Eighth Revision of the International Lists of Diseases and Causes of Death. The groups and the corresponding code numbers are as follows:

- I Diseases of the Heart (390-398, 402, 404, 410-429)
- II Malignant Neoplasms (140-209)
- III Vascular Diseases (400, 401, 403, 430-458, 582-584)
 - IV Accidents, Suicide, and Homicide (E800-E989)
 - V Diseases of the Respiratory System (460-519)
- VI Congenital Malformations and Certain Diseases of Early Infancy (740-778)
- VII Diseases of the Digestive System (other than Cirrhosis of the Liver) (520-577, except for 571)
- VIII Diabetes Mellitus (250)
 - IX Cirrhosis of the Liver (571)
 - X All other Causes

The postulated percentages of reduction in mortality were arrived at after analysis of past trends and possible future changes. Needless to say, they represent, at the most, educated judgements. As compared to previous projections, these assumptions involve less improvement in the future mortality. The previous projections were prepared in the mid-1960's and they attempted to recognize the change in the declining trend of mortality in the 1950's. With the continuing leveling-off of death rates at most ages in the 1960's, less improvement is now projected for the future.

As can be seen from Tables 3A and 3B, a greater improvement in mortality is being assumed for females than for males. This implies a continuation of the widening of the mortality gap between the two sexes. Large improvements are being assumed at infancy, while very small improvements are assumed for young adult males, and moderate reductions for other ages.

No reductions are assumed for diabetes or cirrhosis of the liver. Cancer, diseases of the heart, and vascular diseases, the most important groups, are assumed to have moderate improvements, but with cancer having less improvement than the latter two groups.

Values of death rates and expectations of life were calculated on the basis of the mortality assumptions for the year 2000. They are shown in Tables 4, 5, and 6, along with comparable figures from both our previous population projections and from a life table based on death rates of the United States in 1972. The mortality assumptions in this study are higher than those used in our previous population projection at all ages except ages under 1 and, for women, over 70.

To translate the postulated reductions in mortality into the survival ratios needed for the population projection, a computer program was written that developed a single-year-of-age life table from death rates of 5-year age groups. The procedure followed is largely that used in the 1959-61 United States decennial life tables. The death rates estimated for 1972 and those projected for 2000 were converted by the program into life tables for those two years.

The survival ratio, that is, the proportion of persons between two integral ages that will survive one year, was computed as the ratio L_{x+1}/L_x from the life tables values.

For the newly born, the survival ratio was calculated as $L_{\rm O}/l_{\rm O}$. This value was applied to the number of births in the year to obtain the population under age one at the end of the year. At the other end of the table, the mortality rates were assumed to remain level after age 100 as suggested by Medicare data. In this case, the population aged 100 and over can be appropriately grouped together and projected as a unit.

Survival ratios were in this way obtained for 1972 and the year 2000. To obtain survival ratios for years berween 1972 and 2000, the death rates corresponding to the survival ratios (one minus the survival ratio) for those two years were interpolated geometrically. This agrees with the finding that in general, over a long period of time, death rates decrease geometrically. Tables 7A and 7B contain the survival ratios for the years 1972 and 2000.

The annual number of deaths and the crude death rates for selected years resulting from the above assumptions are shown in Table 9. All changes in the crude death rate after the year 2000 are due entirely to changes in the age structure of the population, since the age specific death rates were assumed to remain constant after that year.

Migration Assumption

Migration was once a very important element in the growth of the United States population. In the period 1910-15, for example, there was a net immigration (excess of immigration over emigration) of about three million persons. Later on, the level of immigration decreased greatly because of World War I, and because of the adoption of quotas based on national origin in The economic depression in the 1930's caused an additional but temporary decrease. Actually, there were some years in the 1930's in which there was a net emigration. Annual net immigration increased after World War II to around 300,000 persons per year and stayed at that level through the 1950's and into the 1960's. With the Immigration Act of 1965 and other related changes, annual net immigration increased to about 400,000. However, experience in the past few years indicates that it may be returning to the 300,000 level.

In this study, an annual net immigration of 300,000 persons, after allowing for all deaths before the end of the year, is assumed for all future years. The projected numbers of immigrants by single year of age, as recommended by the Bureau of the Census, are listed in Table 8.

C. Population Projections

In Actuarial Study No. 62, three different population projections were presented. Two of these, the low-cost projection and the high-cost projection, could be regarded as basic, since they were derived from the basic set of assumptions regarding future fertility, mortality, and migration. However, the intermediate-cost population projection was actually an average of the two basic projections. It will be observed that this averaging procedure yields a population projection that is different from the one that would be calculated using assumptions of average fertility and average mortality. The 1971 Advisory Council on Social Security recommended that for long-range cost estimates a single set of population projections should be prepared in which all assumptions and procedures are consistent.

For this reason, this study presents only one set of projections, and avoids the idea of a range of high, low and average intermediate projections.

Table 10 summarizes, by broad age groups, the projected population. The groups refer to those aged 0-19, most of whom are not yet covered by the OASDHI system, those aged 20-64, who can be considered potential contributors to the system, and those aged 65 and over, who can be regarded as potential beneficiaries. Two indices are also given in the table, which may be of interest. The first is the percentage of aged persons in the total population, which gives a rough indication of the possible aging of the population. The second is the ratio of persons aged 65 and over to those aged 20-64, which provides a good indicator of possible future changes in cost of the OASDHI system.

The final population projections by sex and 5-year age groups are presented in Tables 11A, 11B, and 11C for each fifth year through the year 2000, and for the years 2025 and 2050. According to these projections, the total population will increase by about 23% between 1973 and 2000. A further increase of 18% would be projected for the next 50 years.

As should be expected, the projected population under age 20 is greatly affected by the fertility assumption. This particular group of the population decreases at first, then increases gradually and somewhat erratically to a level in 2050 that is only 10% higher than in the 1973 population.

The age group 65 and over will be considered in more detail, since it is the most important in regard to future OASDHI costs. This group is projected to increase rapidly until 1995, when its growth decelerates for 10 to 15 years. Shortly after the turn of the century it returns to a rapid rate of increase until the year 2030 after which it almost levels off for the remainder of the projected period.

The temporary stability in the size of this group around the turn of the century is due entirely to the low birth rates that were experienced during the depression years of the 1930's. The relative stability in the period 2030 to 2050 is due to the declining birth rates of the late 1960's and early 1970's, and to the low fertility assumed for the future.

Percentagewise, the age group 65 and over will increase from the current level of 10% of the total population to about 16% by the year 2030. As compared to those aged 20-64, the aged population is projected to increase from a ratio of about 19 per hundred to about 28-29 per hundred by the year 2030. This could be interpreted to indicate that the annual cost of the OASDHI system as a percent of the covered earnings of young workers will increase by about 50% by the year 2030. The ratio of the aged population with respect to both those aged 20-64 and to the total population, decreases temporarily around the turn of the century due to the low birth rates in the depression years of the 1930's.

Table 12 shows the sex ratios (i.e., the number of males per 1,000 females) for the total population and for the aged population for the projection as well as for past censuses. The substantial decline since the 1920's and 1930's is due in part to the decline in the number of immigrants (among whom there was a substantial excess of males during the period of heavy immigration) and also to the higher mortality experienced in the past by males. For the total population, the sex ratio, which is currently below 1,000, is projected to continue to decline through the year 2050.

In the population aged 65 and over, there are now less than 750 males per 1,000 females. This ratio is projected to decrease by the year 1990 to the neighborhood of 650, about which it will fluctuate for the remainder of the projected period.

D. Comparison with Previous Projections

Tables 13 and 14 compare the various population projections prepared since 1945 by this office with those prepared by the Bureau of the Census. It should be observed that some of the projections prepared by this office include the estimated population residing in the outlying areas (Puerto Rico, the Virgin Islands, etc.) covered by the OASDHI system, while those prepared by the Bureau of the Census do not include these areas. In addition, the last three sets of projections prepared by this office have included an adjustment for net census undercount.

A smaller total population is now being projected as compared with prior ones, since lower fertility rates are now projected so as to take into account the decline in the last 15 years and since mortality improvements have been decelerating.

TABLE 1

ACTUAL PAST AND PROJECTED FUTURE BIRTH RATES PER THOUSAND

	Crude	Total						
	Birth	Fertility		Rat	es by A	ge of M	other	
<u>Year</u> l	_/Rate	Rate	15-19	20-24	25-29	30-34	35-39	40-44
	3.00	Damino	3 D TII GMB	D TIOD 11				
	ACT	UAL RATES,	ADJUSTE	D FOR U	NDERREG	ISTRATI	ON	
1940	19.4	2301.3	54.8	135.6	122.8	83.4	46.3	17.5
1945	20.4	2491.2	51.9	138.9	132.2	100.2	56.9	18.2
1950	24.1	3090.5	82.6	196.6	166.1	103.7	52.9	16.3
1955	25.0	3579.7	91.4	242.0	190.5	116.2	58.7	17.1
1960	23.7	3654.9	91.9	257.0	196.8	112.3	56.6	16.4
1965	18.3	2922.4	74.3	194.0	161.4	94.7	46.3	13.5
1968	17.5	2459.5	67.8	168.7	135.7	74.3	35.5	10.3
1969	17.7	2405.8	68.2	162.7	135.2	71.5	33.8	9.7
1970	18.2	2428.2	70.5	163.4	138.3	71.6	32.8	9.0
1971	17.3	2251.8	67.1	150.6	130.0	65.8	29.0	7.7
			PROJECT	ED RATE	S			
1974	15.5	1937.6	58.6	127.5	115.8	56.6	23.0	6.0
1975	15.9	1948.6	56.7	130.7	116.6	56.9	22.9	6.0
1980	17.6	2039.5	54.3	146.6	120.4	58.2	22.6	5.7
1985	17.6	2094.5	54.3	153.1	124.2	59.5	22.3	5.5
1990	16.2	2103.6	54.3	153.1	125.3	60.7	22.0	5.3
1995	14.9	2102.1	54.3	153.1	125.3	61.0	21.7	5.0
2000	14.6	2100.3	54.3	153.1	125.3	61.0	21.6	4.8
2005	14.9	2099.9	54.3	153.1	125.3	61.0	21.6	4.7

Calendar year for Actual Rates and Fiscal year for Projected rates.

PROJECTED FUTURE BIRTH RATES PER THOUSAND FEMALES BY SINGLE YEAR OF AGE OF MOTHER, FISCAL YEAR 1974
AND ULTIMATE YEAR

Age	1974	Ultimate	Age	1974	<u>Ultimate</u>
14	2.8	2.8	32	55.5	60.2
			33	46.3	48.7
15	11.2	8.2	34	40.5	39.8
16	29.4	23.5			
17	54.1	47.8	35	33.2	32.2
18	84.1	78.9	36	26.8	25.6
19	111.4	110.5	37	21.9	20.8
			38	18.3	16.7
20	119.1	133.5	39	14.7	12.7
21	124.1	149.7			
22	129.2	158.9	40	10.8	8.5
23	131.0	164.2	41	7.5	6.3
24	133.9	159.2	42	5.1	3.7
			43	3.3	2.8
25	132.9	149.7	44	1.8	1.5
26	129.7	138.7			
27	118.2	125.3	45	. 8	.8
28	107.0	113.2	46	. 4	.0
29	91.3	99.4	47	. 2	.0
			48	.1	.0
30	76.8	86.1			
31	64.0	70.0	Total	1937.6	2099.9

(Calculated as the ratio of the births to mothers at a given age to the total mid-year female population at that age.)

POSTULATED DEATH RATES FOR YEAR 2000 AS PERCENT OF THE 1972 RATES

MALES

TABLE 3A

	All				Group	of C	auses c	of Deat	th		
Age	Causes	I	_II_	III	IV	V	VI	AII	VIII	IX	_X
		-									
Under l	73.0	90	80	85	75	70	70	50	100	100	100
1-4	89.2	80	80	85	100	75	80	70	100	100	90
5-9	91.9	70	85	85	100	80	90	90	100	100	80
10-14	95.3	70	90	85	100	85	95	95	100	100	90
15-19	98.2	70	90	85	100	90	95	95	100	100	100
20-24	98.2	70	90	85	100	90	100	95	100	100	100
25-29	97.0	70	90	85	100	90	100	95	100	100	100
30-34	95.0	70	90	90	100	90	100	95	100	100	100
35-39	93.7	75	95	95	100	95	100	95	100	100	100
40-44	92.4	80	95	95	100	95	100	95	100	100	100
45-49	92.0	85	95	90	100	100	100	90	100	100	95
50-54	91.0	85	95	90	100	100	100	85	100	100	90
55-59	92.1	90	95	85	100	100	100	85	100	100	85
60-64	92.0	90	95	90	100	100	100	85	100	100	80
65-69	93.9	95	95	90	100	100	100	85	100	100	75
70-74	94.7	95	95	95	100	100	100	85	100	100	80
75-79	93.5	95	95	90	90	100	100	85	100	100	80
80-84	92.0	95	95	85	80	100	100	85	100	100	80
85-89	91.8	95	95	85	80	100	100	90	100	100	80
90 and over	91.5	95	95	85	80	100	100	90	100	100	80
age adjusted											
(1970 Popu-											
lation)	92.2	92.3	94.8	88.9	98.2	97.1	72.1	85.5	100.0	100.0	85.9

POSTULATED DEATH RATES FOR YEAR 2000 AS PERCENT OF THE 1972 RATES FEMALES

	All				Group	of Cau	ses of	Death	L		
Age	Causes	<u> </u>	II	III	IV			VII	VIII	<u>IX</u>	<u>X</u>
Under 1	74.3	70	90	95	75	80	70	50	100	100	100
1-4	89.3	60	90	90	100	75	80	70	100	100	90
5-9	91.1	50	90	85	100	7 5	90	90	100	100	95
10-14	89.1	40	90	90	100	80	90	95	100	100	80
15-19	91.1	40	85	95	100	85	95	95	100	100	75
20-24	89.4	40	85	95	100	90	95	95	100	100	70
25-29	87.3	50	85	95	100	95	100	95	100	100	65
30-34	88.2	60	90	95	100	100	100	95	100	100	70
35-39	90.1	70	90	95	100	100	100	95	100	100	80
40-44	93.3	80	95	95	100	100	100	95	100	100	90
45-49	92.5	80	95	90	100	100	100	90	100	100	95
50-54	91.4	80	95	85	100	100	100	85	100	100	100
55-59	89.6	80	95	80	100	100	100	85	100	100	100
60-64	88.4	80	95	80	100	100	100	85	100	100	100
65-69	87.0	80	95	80	95	100	100	85	100	100	100
70-74	85.8	80	95	80	90	100	100	85	100	100	100
75-79	86.0	80	95	85	85	100	100	85	100	100	100
80-84	87.7	85	95	85	80	100	100	85	100	100	100
85-89	91.3	90	95	90	80	100	100	90	100	100	100
90 and over	93.2	95	95	90	80	100	100	90	100	100	90
age adjusted (1970 Popu-											*
lation)	88.0	83.3	94.6	85.3	94.3	97.3	72.1	85.9	100.0	100.0	94.8

TABLE 4

PROJECTED DEATH RATES (PER 1000) FOR YEAR 2000
COMPARED WITH OTHER DEATH RATES

Age	United States Population 1972	Actuarial Study #46 Year 2000	Actuarial Study #62 Year 2000	This Study Year 2000
	MALE	S		
Under 1 1-4 5-9 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80-84 85 and Over Age Adjusted	19.82 .86 .45 .47 1.59 2.18 1.92 2.17 2.88 4.40 7.09 11.18 17.34 26.39 40.78 59.71 84.06 121.70 212.81	15.64 .86 .42 .44 1.10 1.60 1.32 1.43 2.03 3.28 5.28 8.66 13.36 20.14 29.50 43.05 70.81 110.19 174.60	20.02 .74 .37 .40 1.02 1.46 1.42 1.62 2.21 3.56 5.76 9.41 14.24 21.12 32.22 47.72 72.30 116.92 208.92	14.47 .76 .42 .45 1.56 2.14 1.86 2.06 2.70 4.07 6.53 10.17 15.98 24.28 38.29 56.54 78.60 111.97 195.14
(1970 Population)	10.59	8.29	8.98	9.75
	FEMAL	ES		
Under 1 1-4 5-9 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80-84 85 and Over Age Adjusted	15.71 .69 .36 .30 .61 .74 .82 1.15 1.69 2.60 4.03 5.87 8.56 12.50 20.48 31.75 48.98 83.32 178.12	12.18 .70 .28 .25 .47 .54 .65 .83 1.26 1.92 2.93 4.54 6.48 9.98 16.50 27.32 50.31 90.62 152.86	15.30 .61 .28 .22 .40 .52 .67 .94 1.36 2.04 3.08 4.60 6.81 10.83 17.10 28.48 50.28 90.86 182.74	11.67 .62 .32 .27 .56 .66 .72 1.02 1.53 2.42 3.73 5.36 7.67 11.05 17.82 27.24 42.12 73.07 163.87
(1970 Population)	7.87	6.94	7.39	6.94

TABLE 5

EXPECTATION OF LIFE (IN YEARS) BASED ON PROJECTED DEATH RATES FOR THE YEAR 2000 COMPARED WITH THOSE BASED ON OTHER DEATH RATES

Age	U.S. Population 1959-61	Actuarial Study #46 Year 2000	Actuarial Study #62 Year 2000	This Study Year 2000
		MALES	•	
0 1 5 10 20 30 40 50 60 65 70	66.80 67.80 64.10 59.27 49.77 40.56 31.42 23.02 15.94 12.95 10.33	71.44 71.56 67.80 62.93 53.37 44.10 34.76 26.02 18.32 14.96 11.88	70.31 70.68 66.89 62.01 52.40 43.08 33.81 25.14 17.58 14.28 11.33	69.01 69.01 65.21 60.34 50.88 41.82 32.69 24.16 16.76 13.59 10.92
		FEMALES	S	
0 1 5 10 20 30 40 50 60 65 70	73.24 73.93 70.21 65.35 55.60 46.00 36.61 27.71 19.52 15.80 12.37	77.14 77.07 73.28 68.38 58.60 48.92 39.38 30.20 21.58 17.54 13.80	76.42 76.56 72.75 67.84 58.04 48.35 38.84 29.70 21.12 17.15	76.92 76.82 73.00 68.12 58.37 48.74 39.29 30.34 22.01 18.12 14.56

(Figures for Actuarial Studies No. 46 and 62 are average of high and low projection figures.)

PROJECTED EXPECTATION OF LIFE (IN YEARS)
FOR VARIOUS AGES AND YEARS

TABLE 6

Year	Age 0	<u>Age 20</u>	Age 65						
	MALES								
1972 1975 1980 1985 1990 1995 2000	67.77 67.90 68.12 68.35 68.57 68.79 69.01	50.02 50.11 50.27 50.42 50.57 50.73 50.88	13.07 13.13 13.22 13.31 13.40 14.50 13.59						
•	FEMA	ALES							
1972 1975 1980 1985 1990 1995 2000	75.27 75.45 75.74 76.04 76.33 76.63 76.92	57.06 57.20 57.43 57.67 57.90 58.14 58.37	17.10 17.21 17.39 17.57 17.76 17.94 18.12						

TABLE 7A

PROBABILITY OF DEATH WITHIN ONE YEAR (COMPLEMENT OF SURVIVAL FACTOR) BY SINGLE YEAR OF AGE FOR YEARS 1972 AND 2000 (PER 100,000 EXPOSED)

MALES

<u>Age</u>	1972	2000	Age	1972	2000	Age	1972	2000
**	1753	1285	33	230	218	67	4173	3929
0	267	206	34	242	229	68	4506	4255
ĺ	115	103	35	257	242	69	4858	4597
2	74	66	36	275	258	70	5236	4965
3	58	52	37	296	277	71	5632	5348
4	51	46	38	320	299	72	6038	5730
5	50	45	39	348	323	73	6451	6110
6	48	45	40	379	351	74	6881	6498
7	45	42	41	415	383	75	7340	6908
8	40	37	42	456	421	76	· 7838	7353
9	34	31	43	502	463	77	8382	7839
10	30	27	44	553	511	78	8982	8376
11	32	30	45	610	563	79	9645	8966
12	45	43	46	671	619	80	10376	9608
13	69	66	47	736	678	81	11175	10310
14	98	95	48	807	740	82	12042	11087
15	127	124	49	884	806	83	12981	11948
16	153	150	50	966	879	84	14033	12931
17	174	171	51	1056	959	85	15252	14075
18	189	186	52	1155	1050	86	16609	15339
19	201	198	53	1264	1153	87	18019	16630
20	214	210	54	1381	1266	88	19413	17879
21	223	219	55	1508	1388	89	20744	19067
22	224	220	56	1643	1517	90	21987	20227
23	218	214	57	1788	1651	91	23198	21410
24	208	203	58	1944	1792	92	24547	22711
25	197	192	59	2109	1938	93	26275	24268
26	189	187	60	2284	2095	94	28165	25871
27	186	180	61	2479	2273	95	29380	26909
28	189	182	62	2703	2486	96	29528	27193
29	196	188	63	2958	2735	97	29192	27275
30	203	194	64	3239	3013	98	29255	27881
31	211	201	65	3538	3307	99	30445	29343
32	220	209	66	385 0	3613	100	34674	32152

(Age is age last birthday at beginning of year. First figure, at age **, is probability that a birth within the year will die before the end of the year.)

TABLE 7B

PROBABILITY OF DEATH WITHIN ONE YEAR (COMPLEMENT OF SURVIVAL FACTOR) BY SINGLE YEAR OF AGE FOR YEARS 1972 AND 2000 (PER 100,000 EXPOSED)
FEMALES

<u>Age</u>	1972	2000	Age	1972	2000	<u>Age</u>	1972	2000
**	1394	1040	33	128	113	67	2122	1846
0	213	167	34	138	122	68	2317	2008
1	93	83	35	149	132	69	2524	2180
2	60	53	36	161	144	70	2751	2370
3	47	42	37	175	158	71	2996	2575
4	41	37	38	190	173	72	3256	2795
5	39	36	39	207	191	73	3537	3033
6	37	34	40	225	209	74	3833	3287
7	35	32	41	246	230	75	4151	3560
8	32	. 29	42	269	252	76	4519	3883
9	28	26	43	295	276	77	4974	4288
10	26	23	44	324	302	78	5529	4788
11	26	23	45	355	329	79	6169	5361
12	29	25	46	386	358	80	6873	5985
13	35	32	47	418	387	81	7641	6676
14	44	40	48	451	416	82	8484	7463
15	53	48	49	485	446	83	9404	8358
16	61	55	50	521	479	84	10458	9405
17	66	60	51	561	514	85	11702	10635
18	68	62	52	604	552	86	13067	11968
19	70	63	53	651	592	87	14413	13269
20	72	64	54	704	637	88	15662	14460
21	73	66	55	761	686	89	16851	15609
22	75	67	56	822	738	90	18109	16868
23	75	67	57	883	790	91	19481	18266
24	76	67	58	944	843	92	20974	19747
25	77	67	59	1009	898	93	22651	21322
26	79	69	60	1080	960	94	24329	22829
27	83	72	61	1167	1035	95	25586	23965
28	88	77	62	1281	1132	96	26355	24726
29	95	83	63	1421	1251	97	27122	25533
30	103	90	64	1582	1388	98	28542	26930
31	111	98	65	1754	1535	99	29858	28241
32	119	105	66	1934	1689	100	30014	28481

(Age is age last birthday at beginning of year. First figure, at age **, is probability that a birth within the year will die before the end of the year.)

TABLE 8
ASSUMED ANNUAL MIGRATION

<u>Age</u>	Males	Females	Age	Males	Females	<u>Age</u>	Males	Females
0	2249	2281	30	4257	3992	60	428	613
1	2442	2464	31	3810	3471	61	408	591
2	2585	2590	32	3393	3031	62	387	566
3	2681	2667	33	3072	2736	63	367	538
4	2739	2703	34	2814	2541	64	347	508
5	2763	2707	35	2519	2329	65	328	477
6	2758	2685	36	2203	2124	66	308	448
7	2732	2645	37	1938	1944	67	286	417
8	2691	2596	38	1751	1788	68	261	384
9	2639	2545	39	1618	1653	69	233	350
10	2578	2501	40	1491	1537	70	207	317
11	2507	2473	41	1376	1438	71	180	284
12	2461	2464	42	1275	1353	72	157	254
13	2457	2480	43	1181	1280	73	138	225
14	2485	2533	44	1095	1217	74	122	199
15	2523	2587	45	1024	1165	75	106	175
16	2585	2609	46	966	1125	76	92	148
17	2638	2831	47	905	1078	77	80	128
18	2668	3353	48	831	1015	78	73	116
19	2698	4048	49	752	943	79	69	108
20	2727	4698	50	681	879	80	65	100
21	2714	5355	51	614	817	81	60	91
22	2878	5804	52	564	769	82	55	82
23	3314	5916	53	536	742	83	49	72
24	3897	5792	54	525	728	84	41	60
25	4434	5676	55	513	714	85+	0	0
26	4995	5545	56	507	702			
27	5279	5301	57	497	687			
28	5121	4929	58	477	665			
29	4676	4474	59	451	639			

Total, all ages: 140,395 Males; 159,605 Females

TABLE 9

PROJECTED ANNUAL NUMBER AND CRUDE RATE OF BIRTHS, MIGRATION, DEATHS, AND NET INCREASE

		Number (in	thousan	ds)	Ra	ate (per	thousand)	
<u>Year</u>	<u>Births</u>	Migra.	Deaths	Increase	<u>Births</u>	Migra.	Deaths	Increase
1975	3548	300	2098	1750	15.92	1.35	9.42	7.85
1980	4097	300	2236	2161	17.61	1.29	9.61	9.29
1985	4287	300	2356	2231	17.58	1.23	9.66	9.15
1990	4125	300	2472	1953	16.21	1.18	9.72	7.67
1995	3913	300	2591	1622	14.86	1.14	9.84	6.16
2000	3945	300	2712	1533	14.56	1.11	10.01	5.66
2005	4152	300	2858	1594	14.89	1.08	10.25	5.72
2010	4282	300	3026	1556	14.93	1.05	10.55	5.42
2015	4252	300	3201	1351	14.46	1.02	10.88	4.59
2020	4184	300	3397	1087	13.93	1.00	11.32	3.62
2025	4205	300	3628	877	13.78	.98	11.89	2.87
2030	4305	300	3873	732	13.93	.97	12.53	2.36
2035	4386	300	4082	604	14.04	.96	13.06	1.93
2040	4402	300	4213	489	13.97	.95	13.37	1.55
2045	4394	300	4269	425	13.84	.94	13.45	1.34
2050	4418	300	4270	448	13.82	.94	13.36	1.40

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PROJECTIONS OF THE UNITED STATES POPULATION BY BROAD AGE GROUPS

					65 and or	er as
	Po	pulation	(in millions)		Percent	Ratio of
<u>Year</u>	Under 20	20-64	65 and over	Total	of total	20-64
1973	79.665	117.956	21.916	219.538	10.0	.186
1975	78.291	121.725	22.859	222.875	10.3	.188
1980	75.806	131.913	24.969	232.689	10.7	.189
1985	75.812	141.051	27.037	243.900	11.1	.192
1990	78.433	146.745	29.265	254.443	11.5	.199
1995	80.961	151.693	30.669	263.323	11.6	.202
2000	81.368	158.678	31.034	271.080	11.4	.196
2005	80.487	166.892	31.535	278.914	11.3	.189
2010	80.593	172.642	33.629	286.864	11.7	.195
2015	81.956	174.442	37.793	294.190	12.8	.217
2020	83.493	174.020	42.766	300.279	14.2	.246
2025	84.172	173.054	47.925	305.152	15.7	.277
2030	84.271	173.499	51.383	309.153	16.6	.296
2035	84.631	176.259	51.601	312.491	16.5	.293
2040	85.543	179.322	50.347	315.211	16.0	.281
2045	86.588	180.809	50.065	317.462	15.8	.277
2050	87.324	181.046	51.239	319.609	16.0	.283

TABLE 11A

UNITED STATES TOTAL POPULATION, 1973-2050
(in thousands)

_	Age	1973	1975	1980	1985	1990	1995	2000	2025	2050
	0-4	17774	17267	18897	20918	20852	19810	19311	20712	21786
•	5-9	19127	18309	17349	18975	20993	20928	19891	20937	21839
	10-14	21593	21101	18405	17448	19072	21086	21023	21345	21939
	15-19	21169	21615	21155	18470	17516	19136	21144	21179	21759
	20-24	19070	19977	21656	21200	18534	17587	19198	20319	21325
	25-29	16598	18006	20082	21751	21299	18652	17713	19726	21099
	30-34	13748	14748	18080	20142	21800	21353	18727	20280	21300
	35-39	11887	12256	14731	18033	20078	21723	21283	21224	21536
	40-44	12043	11687	12163	14607	17867	19888	21514	21087	21119
ı	45-49	12461	12281	11487	11958	14355	17553	19536	18830	19888
28	50-54	12154	12267	11910	11148	11612	13938	17044	16801	18663
	55-59	10522	10896	11683	11352	10635	11088	13315	16879	18250
ı	60-64	9473	9606	10121	10862	10566	9910	10350	17908	17865
	65-69	7575	8028	8565	9044	9718	9469	8897	16430	16107
	70-74	5688	5849	6741	7208	7637	8224	8032	12928	12466
	75-79	4183	4272	4539	5261	5646	6013	6497	9227	9042
	80-84	2726	2789	2928	3137	3666	395 7	4251	5369	6754
	85-89	1300	1411	1524	1620	1756	2078	2260	2576	4394
	90-94	367	421	548	600	648	713	856	1014	1875
	95-99	67	77	109	145	161	177	198	304	493
	100+	8	11	16	23	32	37	42	77	107
	0-19	79663	78292	75806	75811	78433	80960	81369	84173	87323
	20-64	117956	121724	131913	141053	146746	151692	158680	173054	181045
	65+	21914	22858	24970	27038	29264	30668	31033	47925	51238
	Total	219533	222874	232689	243902	254443	263320	271082	305152	319606

TABLE 11B

UNITED STATES MALE POPULATION, 1973-2050
(in thousands)

	Age	<u>1973</u>	1975	1980	1985	1990	1995	2000	2025	2050
	0-4 5-9	9086 9761	8830 9344	9659 8868	10694 9695	10661 10728	10129 10696	9875 10167	10593 10704	11142 11165
	10-14	11012	10766	9390	8916	9742	10772	10741	10909	11213
	15-19	10877	11003	10775	9407	8935	9758	10784	10806	11102
	20-24	9636	10109	10966	10740	9386	8919	9735	10310	10822
	20 24	5050	±0±03	10300	10,10	3000	0,5 = 0	3.00	20020	
	25-29	8348	9057	10112	10961	10738	9398	8936	9957	10654
	30-34	6880	7384	9073	10118	10959	10739	9413	10211	10729
	35-39	5939	6111	7358	9027	10061	10893	10677	10660	10821
ı	40-44	6016	5839	6042	7269	8912	9930	10750	10554	10574
	45-49	6144	6975	5704	5905	7102	8706	9700	9368	9901
29										
1	50-54	5928	5977	5830	5479	5676	6828	8372	8278	9201
•	55 - 59	5056	522 7	5591	5459	5136	5327	6414	8170	8849
	60-64	4415	4484	4714	5048	4936	4651	4834	8434	8426
	65-69	3393	3579	3818	4023	4313	4226	3990	7397	7265
	70-74	2391	2462	2805	2997	3168	3401	3340	5422	5241
	75-79	1635	1646	1736	1986	2128	2259	2430	3497	3433
	80-84	985	992	1002	1065	1226	1320	1413	1793	2267
	85-89	433	461	475	485	522	608	660	750	1292
	90-94	113	126	154	161	167	183	217	258	480
	95-99	19	21	28	35	37	39	44	67	110
	100+	2	3	4	5	7	7	8	15	21
	0-19	40736	39943	38692	38712	40066	41355	41567	43012	44622
	20-64	58362	60263	65390	70006	72906	75391	78831	85942	89977
	65+	8971	9290	10022	10757	11568	12043	12102	19199	20109
	Total	108069	109496	114104	119475	124540	128789	132500	148153	154708

TABLE 11C

UNITED STATES FEMALE POPULATION, 1973-2050
(in thousands)

Age	1973	1975	1980	1985	1990	1995	2000	2025	2050
0-4	8688	8437	9238	10224	10191	9681	9436	10119	10644
5-9	9367	8965	8481	9280	10265	10232	9724	10233	10674
10-14	10581	10335	9015	8532	9330	10314	10282	10436	10726
15-19	10391	10612	10380	9063	8581	9378	10360	10373	10657
20-24	9433	9868	10690	10460	9148	8668	9463	10009	10503
25-29	8250	8949	9970	10790	10561	9254	8777	9769	10445
30-34	6868	7364	9007	10024	10841	10614	9314	10069	10571
35-39	5948	6145	7373	9006	10017	10830	10606	10564	10715
40-44	6029	5848	6121	7338	8955	9958	10764	10533	10545
45-49	6317	6206	5783	6053	7253	8847	9836	9462	9987
50-54	6226	6290	6080	5669	5936	7110	8672	8523	9462
55-59	5466	5669	6092	5893	5499	5761	6901	8709	9401
60-64	505 7	5122	5407	5814	5630	5259	5516	9474	9439
65-69	4182	4449	4747	5021	5405	5243	4907	9033	8842
70-74	3298	3387	3936	4211	4469	4823	4692	7506	7225
75-79	2548	2626	2803	3275	3518	3754	4067	5730	5609
80-84	1742	1797	1926	2072	2440	2637	2838	3576	4487
85-89	866	950	1049	1135	1234	1470	1600	1826	3102
90-94	254	295	394	439	481	530	639	756	1395
95-99	49	56	81	110	124	138	154	237	383
100+	6	8	12	18	25	30	34	62	86
0-19	39027	38349	37114	37099	38367	39605	39802	41161	42701
20-64	59594	61461	66523	71047	73840	76301	79849	87112	91068
65+	12945	<u>.</u> 3568	14948	16281	17696	18625	18931	28726	31129
Total	111566	113378	118585	124427	129903	134531	138582	156999	164898

TABLE 12

ACTUAL AND PROJECTED SEX RATIO OF THE UNITED STATES TOTAL POPULATION AND AGED POPULATION (MALES PER 1000 FEMALES)

<u>Year</u>	Total Population	Population Aged 65 & Over
1900	1045	1022
1910	1061	1012
1920	1043	1013
1930	1027	1005
1940	1012	955
1950	993	897
1960	987	830
1970	972	724
1973	967	693
1980	962	670
1990	958	653
2000	956	639
2010	953	643
2020	948	667
2030	939	660
2040	936	635
2050	938	645

(Actual ratios for years 1900 to 1973, projected ratios for years 1980 and beyond.)

SUMMARY OF VARIOUS POPULATION PROJECTIONS,
TOTAL POPULATION (IN MILLIONS)

TABLE 13

Projection	1975	2000	2025
This Study Actuarial Study #62, 1966 Actuarial Study #46, 1957 Actuarial Study #33, 1952 Actuarial Study #24, 1946	233 227-229 315-238 189-201 147-191	271 301-323 263-343 210-254 124-241	305 374-447 291-441 N.A. N.A.
Projection	1975	2000	2020
Bureau of the Census, 1972 Bureau of the Census, 1971 Bureau of the Census, 1970 Bureau of the Census, 1966 Bureau of the Census, 1964 Bureau of the Census, 1958 Bureau of the Census, 1955 Bureau of the Census, 1955 Bureau of the Census, 1953	213-216 216-218 215-219 214-227 219-230 216-244 207-228 199-221	251-301 271-322 266-321 280-356 290-362 N.A. N.A.	265-392 307-447 299-440 N.A. N.A. N.A.

Where more than one projection was prepared, the figures shown are for the lowest and highest values.

Actuarial Studies exclude population in outlying areas.

Actuarial Studies No. 46, 62, and this study include adjustment for net undercount. Projections V and VI of Actuarial Study No. 46 were not considered.

Census projections before 1964 exclude population in Alaska and Hawaii.

N.A.--not available.

TABLE 14

SUMMARY OF VARIOUS POPULATION PROJECTIONS, POPULATION AGED 65 AND OVER (IN MILLIONS)

Projection	1975	2000	2025
This Study Actuarial Study #62, 1966 Actuarial Study #46, 1957 Actuarial Study #33, 1952 Actuarial Study #24, 1946	22.9 22.0-22.3 22.0-23.3 20.1-20.6 16.9-20.5	31.0 29.6-31.8 29.5-35.2 25.8-28.0 19.0-29.3	47.9 46.8-51.5 42.1-54.6 N.A. N.A.
Projection	1975	2000	2020
Bureau of the Census, 1972 Bureau of the Census, 1971 Bureau of the Census, 1970 Bureau of the Census, 1966 Bureau of the Census, 1964 Bureau of the Census, 1958 Bureau of the Census, 1955 Bureau of the Census, 1955	22.2 21.9 21.5 21.2 21.2 21.9 20.7 20.7	28.8 28.8 28.8 N.A. 28.2 N.A. N.A.	N.A. 40.3 40.2 N.A. N.A. N.A. N.A.

Where more than one projection was prepared, the figures shown are for the lowest and highest values.

Actuarial Studies include population in outlying areas.

Actuarial Studies No. 46, 62, and this study include adjustment for net undercount. Projections V and VI of Actuarial Study No. 46 were not considered.

Census projections before 1964 exclude population in Alaska and Hawaii.

N.A. -- not available.