



**UNITED STATES  
POPULATION  
PROJECTIONS  
FOR OASDHI  
COST ESTIMATES**

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## FOREWARD

Actuarial Study No. 77 presents the population projections that underlie the long-range cost estimates for the Old-Age, Survivors, Disability and Hospital Insurance system, which were included in the 1978 reports of the OASDHI Boards of Trustees to the Congress.

These projections were developed in consultation with the Bureau of the Census. We are grateful to Dr. John Long and the rest of 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 projections in this Actuarial Study are identical to those published by the Bureau of the Census. The projections prepared by the Bureau of the Census are generally for only the United States (the 50 States and the District of Columbia) although they also include the armed forces overseas. Those prepared by the Office of the Actuary, which are used as the basis for Social Security cost projections, include in addition Puerto Rico, Guam, American Samoa, the Canal Zone, the Virgin Islands, and certain civilians overseas. The Office of the Actuary population projections also contain an allowance for net census undercount. In addition, the fertility assumptions used by the Bureau of the Census are different from those used by the Office of the Actuary.

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## A. Introduction

In order to make long-range projections of the cost of the Old-Age, Survivors, Disability and Hospital Insurance system, it is necessary to have projections of the population in employments and geographical areas covered by the system. The Office of the Actuary has been preparing these population projections and they have been used as the first basic elements in the preparation of the annual reports to the Congress of the Boards of Trustees of the OASI, DI, and HI Trust Funds. The following table provides a brief synopsis of these projections.

Due to the recent fast changes in mortality and fertility in the United States it has been decided to update the population projections on a yearly basis to coincide with the annual reports of the Boards of Trustees. This new schedule allows for the most recent experience to be taken into account.

The projections described in this report were used as the basis for the cost estimates presented in the 1978 Trustees Reports.

HISTORY OF POPULATION PROJECTIONS FOR OASDHI LONG-RANGE COST ESTIMATES

<u>Date of Preparation</u>	<u>Publication</u>	<u>Cost estimate for which it was the basis</u>	<u>Comments</u>
1934-35	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, p.207	1934-35	Covered the contemporary 48 States, District of Columbia, Alaska and Hawaii. Assumed continuance of 1920-29 mortality rates and birth rates such that an arbitrary growth curve would be followed.
1937	Actuarial Study No. 8	1937-45	Based on the "medium" series of projections made by Thompson and Whelpton for the National Resources Committee. (Population Statistics, National Data, October 1937.) Projections were used in conjunction with the original 1934-35 projection to demonstrate the potential range in costs.
1946	Actuarial Study No. 24	1946-52	Based on projections made by Thompson and Whelpton for the National Resources Planning Board (Estimates of the Future Population of the United States, 1940-2000, August 1943), with modifications to account for actual experience of wartime mortality and fertility.
1952	Actuarial Study No. 33	1953-56	Extended coverage of projections to entire Social Security Area.
1957	Actuarial Study No. 46	1958-65	Two projections were made, based on "low" and "high" mortality assumptions.
1966	Actuarial Study No. 62	1966-73	Took into account recent experience in mortality, fertility, and population size. Two projection series, based on low and high mortality assumptions.
1974	Actuarial Study No. 72	1974	Utilized latest fertility and mortality experience and results of the 1970 Census. Projections were made by single year of age, and single years into the future. Single projection series.
1975	Unpublished: Brief Summary of results included in 1975 OASDI Trustees Report, Appendix A	1975	Latest experience taken into account. Mortality rates at certain ages and for certain causes projected to increase. Fertility projected for "short-range" and "long-range" segments separately.
1976	Unpublished: Brief Summary of results included in 1976 OASDI Trustees Report, Appendix A	1976	Three projection series, based on varying fertility assumptions
1977	Actuarial Study No. 76	1977	Three projection series, based on varying fertility assumptions. Latest mortality and fertility data taken into account (through August 1976). Updated version of the July 1, 1975 population estimates used as the starting population along with the latest Census immigration figures.
1978	Actuarial Study No. 77	1978	Three projection series, based on varying fertility assumptions. Latest mortality and fertility data taken into account (through November 1977). July 1, 1977 population estimates used as the starting population along with the latest Census immigration figures.

## B. Methodology and Assumptions

The population projections presented in this report have been prepared by a refinement of the method used by Thompson and Whelpton in their two reports cited in the synopsis 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 at the beginning and at the end of the year. The average of the resulting numbers of births yields the projected number of births within the year. 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.

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.

Carrying these various steps forward, population estimates are developed by single year of age and sex for each year in the future.

### Starting Population

The starting point for the projections in this study is the estimated United States population on July 1, 1977. Geographically it includes the 50 States, District of Columbia, 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 those areas. The figures by area or category are as follows:

<u>Area or Category</u>	<u>Estimated Population on July 1, 1977 (in thousands)</u>
Residents of the 50 States and D.C.	
Including Armed Forces Overseas, Adjusted for Net Undercount. . . . .	222,316
Puerto Rico. . . . .	2,969
American Samoa, Guam, and the Virgin Islands . . . . .	200
Federal Civilian Employees and Dependents of all Federal Employees Overseas. . .	429
Crews of Merchant Vessels. . . . .	16
Other Citizens Overseas. . . . .	236
	<hr/>
<b>Total</b>	<b>226,166</b>

The Bureau of the Census prepared the estimate as of July 1, 1977 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, 1977, based on the projected July 1, 1975 Office of the Actuary's figures. For the remaining three population groups (Federal civilian 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 net undercount of other citizens in the 1970 census.

#### Fertility Assumptions

The rate at which children are born can be measured in a variety of ways. One of the most common measures is the crude birth rate, defined as the number of births in a year divided by the total mid-year population. However, this statistic is not a good measure of the actual rate of childbirth, since it is highly dependent on the age-sex distribution of the total population. A better measure is given by the age-specific birth rate, which is the births to females of a certain age divided by the mid-year female population at that age. While generally used in demographic calculations, age-specific rates are somewhat unwieldy when it comes to providing an overall description of the rate of childbirth. Thus the arithmetic sum of the single year of age-specific rates, known as the total fertility rate, is commonly used to describe fertility in a given period by means of a single statistic. The total fertility rate also has the advantage of the following theoretical interpretation: If (i) a cohort of females were to experience a given calendar year's age-specific birth rates throughout their childbearing lifetime, for instance at age 20 the cohort would have children at a rate equal to the age-specific birth rate for 20-year olds in the given year, and (ii) if all members of the cohort were to survive to the end of their childbearing lifetimes, then their average number of lifetime births would equal the total fertility rate. An advantage of the total fertility rate is that it is completely independent of the age distribution of the population under study.

For the population to replace itself over time, females must give birth at a total fertility rate of approximately 2.1 children per woman. At this rate, the survivors of a cohort of females will have had, by the end of their childbearing lifetime, a total number of female children

equal to the size of the original cohort. The 2.1 total fertility rate is known as the theoretical replacement rate. Although eventually a stable population would be produced by the theoretical replacement rate, when taken in conjunction with the immigration assumptions, it would produce an ever increasing population.

In the past, United States fertility has been characterized by dramatic fluctuations - due in part to changes in economic conditions and social attitudes. Fertility declined rapidly from 1917 (the first year of reasonably reliable statistics) to a minimum around replacement level 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 equal to 3.69 children per woman. But then birth rates fell steeply in the 1960's and further into the 1970's, reaching an estimated value of 1.72 children per woman in 1976. In 1977, for the first time in nearly a quarter of a century, the monotonic decline in the total fertility rate was halted. The rate was estimated to have increased to 1.79. The trend followed by the total fertility rate since 1920 can be seen from the table on the following page.

Examination of the fertility experience in the long-range past is of only limited value in forming a hypothesis about the future. Due to the extensive use of birth-control methods in this country, the birth rate is now largely a function of social attitudes and economic influences, and will therefore tend to exhibit some of the same fluctuations associated with these variables. As a result, it is essentially impossible to forecast future birth rates with any degree of certainty. The degree of uncertainty would also be reflected in the long-range cost estimates of the social security system, which are based on the population projections.

With the above difficulty in mind, it was decided to make projections for use in the 1978 reports of the Social Security Trustees Boards on the basis of three different ultimate fertility assumptions. Designated as alternatives I, II, and III, the assumptions specify ultimate total fertility rates of 2.3, 2.1, and 1.7 children per woman respectively. Due to the considerable degree of control that couples now have over the size of their families and to the high economic cost involved in having and raising children, it is considered unlikely that birth rates would return to the high levels of the 1950's and 1960's. Thus the "high fertility" alternative I assumption was set at a relatively low rate 2.3 children per woman. The lower limit of the range, 1.7 children per woman, was chosen with due consideration to studies of birth expectations, desired family size, and the long-term consequences of a lower rate. The intermediate assumption of 2.1 children per woman was chosen because it represents the level at which theoretically the population would replenish itself, if migration is disregarded.

Total Fertility Rates: United States, 1920-1977

<u>Year</u>	<u>Total Fertility Rate</u>
1920	3.26
1925	3.01
1930	2.53
1935	2.19
1940	2.23
1945	2.42
1950	3.03
1955	3.50
1960	3.61
1965	2.88
1970	2.43
1971	2.25
1972	1.99
1973	1.86
1974	1.82
1975	1.77
1976	1.72
1977	1.79

Source:

1920-1973, National Center for Health Statistics,  
Fertility Tables for Birth Cohorts by Color,  
United States, 1917-73, April 1976.

1974-75, Bureau of the Census.

1976-77, preliminary estimates prepared by the  
Office of the Actuary, Social Security Administration.

All rates include adjustments for underregistration  
of births, and underenumeration of population.

Unlike prior reports where the short run past indicated a probable trend in the short range fertility outlook, this report breaks with that tradition. The reason being, as indicated previously, is that the 1977 total fertility rate showed a marked increase over 1976.

The year 1977 has yet another point of interest. When the general fertility rates are examined on a monthly basis two distinct trends emerge. The first half of the year points to an increasing birth rate while the latter half of the year shows just the opposite. Hence it was determined that a total fertility rate of 1.75 would best represent the 12-month period beginning July 1, 1977. The fertility rates were then projected by the cohort method using 1.75 as a base figure.

The fertility rates were projected by the cohort method. Ultimate fertility levels for each alternative was assumed to be achieved by the 1970-born cohort, or by the year 2005, whichever was earlier. For example, the 1970-born cohort attains age 14 in 1984, implying that the age 14 ultimate rate is reached in 1984. Similarly, the age 25 ultimate rate first occurs in 1995. However, the age 40 ultimate rate is assumed to be reached at the upper time limit, 2005. Age-specific birth rates were determined by single year of age from 14 to 49 in such a manner that the total fertility rate would be equal to the ultimate rate specified and the mean age at childbearing would be 26 years, for the ultimate cohort. The age specific rates were linearly interpolated for each year between July 1977 and July 2004. Table 2 shows the 1977 ultimate age-specific central birth rates for each alternative.

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.

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

Projecting future mortality is regarded by many as being somewhat less troublesome than projecting future fertility. Generally speaking, social security benefits are payable because the individual survives, not because he died. The probability that the payments will be made is relatively stable because significant fluctuations in mortality result in small variations in the survival rates. In addition, mortality rates, when compared with fertility rates, have shown much lower fluctuations, historically, and the tendency has been for them to move gradually from

one level to the next. Therefore, only one mortality projection was prepared, in contrast to the three projections prepared for fertility.

The basic mortality projection procedure involves estimating ultimate mortality rates (effective at the end of the projection period) based on rates experienced at the beginning of the period. The rates for the intermediate years within the period are calculated by geometric interpolation between the base year and the ultimate year. This procedure is described in more detail in the following paragraphs.

Mortality rates were postulated for the year 2050. These were determined by analyzing death rates by age and sex, for ten broad groups of causes of death, as recorded for 1975 and earlier years by the National Center for Health Statistics in Vital Statistics of the United States. This analysis was supplemented with provisional mortality data published in the NCHS Monthly Vital Statistics Reports. Mortality rates for 1977 by age, sex, and the ten groups of causes of death were estimated by adjusting uniformly the 1975 rates to reflect the changes in overall mortality by sex (all ages and causes combined) between 1975 and 1977. It was necessary to estimate the overall 1977 mortality rates by sex since at the time the projections were prepared the data available was for only the first eight months of the year on a preliminary basis. The assumed percentage changes in mortality shown in Tables 3A and 3B were applied to the estimated 1977 death rates to obtain the ultimate rates by cause, age and sex. Summing the rates for all causes within each age-sex category provided the ultimate mortality rates for all causes combined, as shown in Table 4.

The grouping of the causes of death, previously referred to was done 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. Disease of the Heart (390-398, 402, 404, 410-429)
- II. Malignant Neoplasms (140-209)
- III. Vascular Disease (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

Needless to say, the postulated changes in mortality represent our educated judgments, at best. As compared to Actuarial Study No. 76, this study projects greater improvements in mortality, as recent data has so indicated.

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. At ages 15-34, male mortality is projected to worsen compared to its 1977 level. This is primarily due to a projected continued trend of increasing death rates due to accidents, suicide, and homicide at these ages. Higher mortality is also projected for certain other causes of death for some age groups, where indicated by the past trends. Moderate improvements are projected for the most important groups of causes of death, cancer, diseases of the heart, and vascular diseases, with cancer having the least improvement of the three groups. Table 4 shows the death rates for 1977 and the projected rates for the years 2000 and 2050 in Actuarial Study No. 76 and in this study. It may be noted that the projected death rates for this study are significantly lower than those projected in Actuarial Study No. 76.

Values of expectations of life were calculated on the basis of the mortality assumptions for the years 2000 and 2050. These are shown in Table 5, along with comparable figures from previous studies and from the United States life tables for 1977.

Table 6 shows the expectations of life for ages 0 and 65 for both the historical (starting with 1940) and projection periods. The expectations of life after the year 2050 are assumed to remain level.

To translate the postulated changes in mortality into the survival ratios needed for the population projection, a computer program was written that develops a life table by single-year-of-age from death rates by 5-year age groups. The procedure followed is largely that used in the 1959-61 United States decennial life tables. Using this procedure, life tables were prepared for the years 1977 and 2050, as well as for the year 2000, based on the interpolated mortality for that year. These life tables are shown in abridged form in Tables 7A, 7B, and 7C. 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 table values for the years 1977 and 2050.

For the newly born, the survival ratio was calculated as  $L_0/l_0$ . This ratio was applied to the number of births during 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. Under this assumption, the population aged 100 and over can be appropriately grouped together and projected as a unit.

To obtain survival ratios for years between 1977 and 2050, the death rates that correspond to the survival ratios (one minus the survival ratio) were interpolated geometrically. This is based on the assumption that in general, over a long period of time, death rates decrease geometrically. Tables 8A and 8B contain the rates for the years 1977 and 2050.

The annual number of deaths and the crude death rates for selected years resulting from the above assumptions are shown in Table 9 along with other statistics.

#### Migration Assumptions

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 people. Percentage wise this was quite a sizeable increase in the population of the United States. 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 1921. The economic depression in the 1930's caused an additional but temporary decrease, which resulted in some annual 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. In this study, an annual net immigration of 400,000 people, after allowing for all deaths before the end of the year, is assumed for all future years. The projected numbers of net immigrants are listed in Table 10 by age and sex.

### C. Population Projections

The population projections which result from the assumptions and the methodology previously described are summarized by broad age groups in Table 11. The total population is distributed in three groups: those aged 0-19, most of whom are not yet covered by the OASDHI system; those aged 20-64, who may be considered potential contributors to the system; and those aged 65 and over, who may be regarded as potential beneficiaries. Two indices are also given in the table. The first 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 due to demographic changes. The second is the ratio of persons aged 65 and over and of persons under 20 to those aged 20-64.

The final population projections by sex and 5-year age groups are presented in Tables 12A through 12I for 1977, for each fifth year through the year 2000 starting with 1980, and for the years 2025 and 2050. Under an ultimate total fertility rate of 1.7 children per woman, the total population grows from its current 226 million to a maximum of 267 million in 2020. At this point, the accumulated effect of the below-replacement fertility results in a slowly diminishing population, to a level of 246 million in 2050. The 2.1 ultimate total fertility projection, coupled with the migration assumptions, results in an ever increasing population, attaining a size of 322 million in 2050. The 2.3 projection, with its greater-than-replacement ultimate fertility, results in a rapidly increasing population, attaining a size of 367 million in 2050.

As expected, the size of the population at ages under 20 is highly dependent on the assumed future fertility rates and is also affected by the size of the population at the childbearing ages. Overall, the under-20 population changes from its 1977 level of 76 million to levels by the year 2050 of 52 million, 87 million, and 108 million respectively for the 1.7, 2.1, and 2.3 total fertility assumptions.

The 65 and over age group will be considered in more detail, since it is the most important with regard to future OASDHI costs. This group is projected to increase rapidly until 1995, when its growth decelerates for the next 10 to 15 years. After the turn of the century it returns to a rapid rate of increase until the year 2035 after which it roughly levels off for the remainder of the projection period.

The temporary stability in the size of this group around the turn of the century is due to the low birth rates that were experienced during the depression years of the 1930's. The high fertility of the 1950's and early 1960's are responsible for the sharp, steady growth from about 2010 to 2035. The relative stability in the period 2035 to 2050 is due to the declining birth rates of the late 1960's and 1970's, and to the low fertility assumed for the future.

As a proportion of the total population the age group 65 and over is projected to increase from the current level of 11 percent to about 16 to 23 percent by the year 2050, depending on the projection series (see Table 11). As compared to those aged 20-64 the aged population is projected to increase from a ratio of about 19 per hundred to a range of 29 to 40 per hundred by the year 2050. This could be interpreted to indicate that everything else being equal, the annual cost of the OASDHI system as a percent of the covered earnings will increase by about 50 to 100 percent by the year 2050. Both ratios with respect to those aged 20-64 and to the total population, decrease temporarily around the turn of the century due to the low birth rates in the depression years of the 1930's, and again starting about 2040 due to the projected low birth rates in the coming decade.

Table 13 shows past and projected sex ratios (i.e., the number of males per 1,000 females) for the total population and for the aged population. Since this ratio is relatively insensitive to changes in overall fertility, only the figures based on the intermediate 2.1 fertility assumptions are shown. The substantial decline in this ratio since the 1920's and 1930's is due in part to the reduction 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 projection period.

In the population aged 65 and over, there are now less than 700 males per 1,000 females. This ratio is projected to decrease slowly, reaching a level of about 656 in 2050.

#### D. Comparison with Previous Projections

Tables 14 and 15 compare various population projections prepared since 1945 by this office and those prepared by the Bureau of the Census. It should be observed that 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 recent projections prepared by this office have included an adjustment for net census undercount. These two factors account for the difference of about 9 million between the most recent Office of the Actuary and Census Bureau starting populations.

TABLE 1

Actual Past and Projected Future Birth Rates  
Per Thousand<sup>1/</sup>

Calendar Year	Total Fertility Rate <sup>2/</sup>	Birth Rates by Age of Mother <sup>3/</sup>					40-49
		14-19	20-24	25-29	30-34	35-39	
Actual Rates							
1940	2,231.8	44.2	132.7	119.8	78.8	45.4	8.3
1945	2,423.7	42.0	133.2	131.5	96.9	54.8	8.9
1950	3,031.2	66.3	192.1	164.5	101.7	52.9	7.8
1955	3,502.3	74.9	234.4	186.4	114.7	58.5	8.3
1960	3,608.4	75.2	249.8	195.4	113.1	56.8	8.2
1965	2,884.7	60.9	192.4	157.4	93.7	46.6	6.8
1970	2,434.1	58.7	164.6	139.4	71.6	32.0	4.4
1971	2,249.1	55.8	150.4	129.7	66.1	28.8	3.9
1972	1,997.0	53.6	129.7	115.1	58.5	24.9	3.4
1973	1,865.3	51.6	119.9	108.8	54.4	22.0	3.0
1974	1,826.7	50.1	118.3	108.7	52.7	20.2	2.6
1975	1,770.6	48.7	114.9	106.8	50.8	18.4	2.4
Projected Rates: Alternative I - 2.3 Ultimate Fertility							
1980	1,822.9	46.2	121.3	112.8	52.1	18.3	2.3
1985	1,970.5	42.5	136.8	127.2	55.9	18.5	2.3
1990	2,137.3	42.3	152.1	141.6	59.7	18.7	2.3
1995	2,257.6	42.3	158.1	155.6	63.5	18.9	2.3
2000	2,296.1	42.3	158.1	159.4	67.2	19.1	2.3
2005	2,300.0	42.3	158.1	159.4	67.8	19.3	2.3
Projected Rates: Alternative II - 2.1 Ultimate Fertility							
1980	1,791.7	45.2	118.9	110.9	51.5	18.2	2.3
1985	1,876.9	39.9	129.5	121.6	54.0	18.0	2.3
1990	1,987.8	38.6	139.9	132.3	56.6	17.9	2.3
1995	2,073.7	38.6	144.4	142.7	59.1	17.8	2.2
2000	2,099.2	38.6	144.4	145.5	61.6	17.7	2.2
2005	2,100.0	38.6	144.4	145.5	61.9	17.6	2.2
Projected Rates: Alternative III - 1.7 Ultimate Fertility							
1980	1,729.2	43.3	114.0	107.3	50.2	17.9	2.3
1985	1,689.6	34.1	114.8	110.5	50.2	17.1	2.2
1990	1,688.6	31.3	115.7	113.8	50.3	16.4	2.1
1995	1,705.8	31.3	116.8	117.0	50.3	15.6	2.0
2000	1,705.4	31.3	116.8	117.8	50.3	14.9	1.8
2005	1,700.0	31.3	116.8	117.8	50.1	14.2	1.8

<sup>1/</sup> Historic rates including adjustments for underregistration of births and underenumeration of population were obtained from the Bureau of the Census, Current Population Reports, Series P-25, No. 704, "Projections of the Population of the United States: 1977-2050," 1977. The 1975 rates are estimated on the basis of preliminary data.

<sup>2/</sup> Number of children ever born to a cohort of 1,000 women (a) assuming the given year's age-specific birth rates throughout the cohort's childbearing years, and (b) disregarding mortality.

<sup>3/</sup> Ratio of births to mothers in the age group to the total mid-year female population in the age group.

TABLE 2

Projected Birth Rates Per Thousand Females<sup>1/</sup>  
 By Single Year of Age:  
 Base Year and Ultimate Year

Age	Base Year <sup>2/</sup>	Ultimate Year, For Ultimate Total Fertility of:		
		2.3	2.1	1.7
14	6.0	1.5	1.4	1.1
15	16.0	7.2	6.6	5.3
16	35.4	21.8	19.9	16.1
17	57.9	47.0	42.9	34.7
18	78.5	75.9	69.3	56.1
19	94.9	100.3	91.6	74.2
20	103.3	122.4	111.8	90.5
21	109.5	142.9	130.5	105.6
22	114.8	162.1	148.0	119.8
23	119.5	177.4	162.0	131.1
24	120.9	185.8	169.5	137.1
25	120.5	183.6	167.6	135.7
26	116.4	177.1	161.7	130.9
27	110.0	163.0	148.8	120.5
28	97.8	146.8	134.0	108.5
29	83.3	126.5	115.5	93.5
30	70.3	104.2	95.1	77.0
31	58.4	83.2	76.0	61.5
32	48.8	64.5	58.9	47.7
33	40.0	49.2	44.9	36.3
34	33.3	37.9	34.6	28.0
35	26.2	29.2	26.7	21.6
36	21.7	23.0	21.0	17.0
37	17.7	18.4	16.8	13.6
38	14.2	14.5	13.2	10.7
39	11.3	11.2	10.2	8.3
40	8.4	8.3	7.6	6.2
41	5.7	5.8	5.3	4.3
42	4.0	3.9	3.6	2.9
43	2.5	2.5	2.3	1.9
44	1.4	1.4	1.3	1.1
45	.7	.8	0.7	.6
46	.4	.4	0.4	.3
47	.2	.2	0.2	.2
48	.1	.1	0.1	.1
49	.0	.0	0.0	.0
Total	1750.0	2300.0	2100.0	1700.0
Mean Age of Childbearing	25.2	26.0	26.0	26.0

<sup>1/</sup> Ratio of births to mothers of the given age to total mid-year female population at that age.

<sup>2/</sup> July 1, 1977 to June 30, 1978.

TABLE 3A

Postulated Death Rates for Year 2050 as Percent of the 1977 Rates

MALES

<u>AGE</u>	<u>ALL CAUSES</u>	<u>Groups of Causes of Death</u>									
		<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	<u>VI</u>	<u>VII</u>	<u>VIII</u>	<u>IX</u>	<u>X</u>
Under 1	52.2	55	70	65	60	60	35	80	70	90	110
1-4	71.6	65	70	55	80	55	55	90	100	100	70
5-9	80.2	60	70	40	90	50	70	90	100	100	70
10-14	92.1	40	75	40	105	55	80	90	100	100	70
15-19	117.5	30	75	50	130	65	90	90	90	100	80
20-24	117.4	30	80	50	130	85	90	90	90	130	80
25-29	112.8	35	80	60	130	100	90	80	90	150	70
30-34	106.2	35	90	60	130	100	100	80	90	140	70
35-39	96.0	50	105	60	120	100	100	80	90	135	70
40-44	88.1	55	115	55	110	100	100	80	90	130	70
45-49	83.1	55	115	55	100	110	100	80	90	120	70
50-54	83.9	60	120	55	90	120	100	80	90	120	70
55-59	83.2	60	120	55	90	130	100	80	90	115	60
60-64	82.2	60	120	55	70	130	100	80	90	115	60
65-69	81.4	60	120	55	60	130	100	80	90	115	60
70-74	84.6	70	120	55	60	130	100	80	90	115	60
75-79	84.8	75	120	55	60	130	100	80	90	100	60
80-84	87.6	85	110	65	70	130	100	80	90	100	60
85-89	87.9	85	110	75	75	130	100	80	100	100	60
90-94	87.4	85	105	75	75	130	100	80	100	100	60
95-99	93.4	90	105	90	90	130	100	80	100	100	60
100+	93.4	90	105	90	90	130	100	80	100	100	60
Age Adjusted (1970 Popu- lation)	85.3	69.1	116.9	60.4	104.6	125.0	39.4	79.9	90.7	118.4	68.3

TABLE 3B

Postulated Death Rates for Year 2050 as Percent of the 1977 Rates

FEMALES

<u>AGE</u>	<u>ALL CAUSES</u>	<u>Groups of Causes of Death</u>									
		<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	<u>VI</u>	<u>VII</u>	<u>VIII</u>	<u>IX</u>	<u>X</u>
Under 1	54.1	70	60	70	60	40	40	80	90	110	110
1-4	62.6	50	45	60	80	30	50	90	100	100	60
5-9	73.5	40	60	60	90	40	70	90	100	100	60
10-14	74.3	40	60	60	90	50	70	90	90	100	60
15-19	84.9	40	60	60	100	60	90	90	80	100	60
20-24	88.5	40	60	60	110	60	100	90	70	110	60
25-29	84.7	40	60	60	110	80	100	90	80	110	60
30-34	80.4	40	60	60	110	100	100	90	80	110	60
35-39	79.0	50	65	60	110	100	100	90	80	110	70
40-44	77.9	50	70	60	110	100	100	90	80	120	70
45-49	78.0	50	80	55	100	100	100	90	80	120	80
50-54	76.8	50	85	55	90	100	100	90	90	120	80
55-59	78.4	55	90	55	90	110	100	80	90	125	80
60-64	75.7	55	90	50	90	120	100	80	90	125	80
65-69	71.8	55	90	50	80	120	100	80	90	110	80
70-74	76.5	65	100	55	60	120	100	80	90	100	90
75-79	73.8	65	100	55	60	120	100	80	90	80	90
80-84	71.9	65	100	55	60	120	100	80	90	80	90
85-89	78.0	75	100	65	70	120	100	80	100	80	90
90-94	82.9	85	100	65	70	120	100	80	100	80	90
95-99	85.8	85	100	75	80	120	100	80	100	80	90
100+	85.8	85	100	75	80	120	100	80	100	80	90
Age Adjusted (1970 Popu- lation)	75.3	65.5	91.5	57.7	89.4	111.9	44.5	82.1	90.2	114.7	84.0

TABLE 4

## Comparison of Projected Death Rates (Per Thousand)

Age	U.S. Population 1977 <sup>1/</sup>	Projected Mortality for the Year 2000		Ultimate Projected Mortality for the Year 2050	
		Actuarial Study #76	This Study	Actuarial Study #76	This Study
<u>MALES</u>					
Under 1	17.40	15.04	13.80	9.71	9.07
1-4	.74	.71	.67	.57	.53
5-9	.40	.40	.37	.35	.32
10-14	.43	.45	.42	.43	.40
15-19	1.40	1.55	1.47	1.74	1.65
20-24	1.99	2.13	2.08	2.38	2.34
25-29	1.90	1.95	1.96	2.13	2.15
30-34	1.96	2.08	1.97	2.21	2.08
35-39	2.63	2.68	2.57	2.66	2.53
40-44	3.99	3.94	3.79	3.66	3.51
45-49	6.35	6.41	5.92	5.83	5.27
50-54	9.93	9.64	9.29	8.66	8.33
55-59	15.36	15.17	14.32	13.64	12.78
60-64	23.99	23.14	22.27	20.62	19.72
65-69	34.58	34.18	31.98	30.91	28.15
70-74	52.83	51.78	49.60	47.15	44.68
75-79	78.49	77.37	73.83	70.88	66.60
80-84	110.25	109.11	105.21	100.91	96.63
85 & Over	168.32	183.20	161.25	176.44	148.59
Age Adjusted (1970 Popu- lation)	9.39	9.42	8.83	8.64	8.01
<u>FEMALES</u>					
Under 1	14.06	11.74	11.35	7.41	7.61
1-4	.62	.55	.53	.41	.39
5-9	.28	.27	.26	.22	.21
10-14	.25	.25	.23	.22	.19
15-19	.53	.53	.50	.54	.45
20-24	.66	.63	.62	.62	.58
25-29	.73	.72	.68	.68	.62
30-34	.95	.94	.88	.87	.77
35-39	1.42	1.52	1.31	1.36	1.13
40-44	2.31	2.26	2.12	1.99	1.80
45-49	3.57	3.44	3.28	3.01	2.78
50-54	5.30	5.03	4.85	4.34	4.07
55-59	8.00	7.57	7.36	6.55	6.27
60-64	11.95	11.18	10.85	9.36	9.04
65-69	16.86	16.05	15.07	13.27	12.12
70-74	28.69	27.14	26.19	22.47	21.95
75-79	47.52	44.80	42.91	36.52	35.08
80-84	74.87	70.45	67.06	56.71	53.84
85 & Over	141.59	149.52	131.76	138.30	113.81
Age Adjusted (1970 Popu- lation)	6.99	6.75	6.34	5.66	5.26

<sup>1/</sup> Preliminary estimate

TABLE 5

Comparison of Expectation of Life (In Years)  
Resulting from the Projected Death Rates

<u>Age</u>	<u>U.S. Population 1977<sup>1/</sup></u>	<u>Actuarial Study #76 Year 2000</u>	<u>Actuarial Study #76 Year 2050 (Ultimate)</u>	<u>This Study Year 2000</u>	<u>This Study Year 2050 (Ultimate)</u>
<u>MALES</u>					
0	69.39	69.57	70.82	70.30	71.65
1	69.60	69.61	70.50	70.27	71.30
5	65.80	65.81	66.66	66.46	67.45
10	60.93	60.93	61.77	61.58	62.55
20	51.43	51.48	52.37	52.10	53.12
30	42.34	42.44	43.45	43.06	44.22
40	33.20	33.33	34.39	33.92	35.12
50	24.66	24.80	25.79	25.33	26.45
60	17.23	17.34	18.17	17.80	18.17
65	14.10	14.15	14.86	14.60	15.45
70	11.29	11.32	11.92	11.69	12.40
<u>FEMALES</u>					
0	76.76	77.40	79.61	78.04	80.40
1	76.84	77.31	79.20	77.92	80.01
5	73.02	73.47	75.32	74.08	76.13
10	68.12	68.57	70.40	69.18	71.21
20	58.36	58.81	60.65	59.41	61.41
30	48.73	49.18	51.01	49.76	51.75
40	39.25	39.72	41.52	40.25	42.19
50	30.25	30.70	32.43	31.19	33.04
60	21.94	22.33	23.93	22.80	24.49
65	18.14	18.47	19.95	18.93	20.50
70	14.50	14.79	16.14	15.20	16.62

<sup>1/</sup> Preliminary estimate

TABLE 6

Actual Past and Projected Expectation of Life at Birth  
and at Age 65

<u>Year</u>	<u>At Birth</u>		<u>At Age 65</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
	<u>Actual</u>			
1940	61.60	65.89	12.07	13.57
1945	63.53	68.42	12.40	14.26
1950	65.47	70.96	12.74	14.95
1955	66.13	72.10	12.84	15.37
1960	66.80	73.24	12.95	15.80
1965	66.92	73.94	12.97	16.31
1970	67.04	74.64	12.99	16.83
1975	68.53	76.12	13.63	17.71
	<u>Projected</u>			
1980	68.88	76.50	13.82	17.95
1985	69.24	76.89	14.02	18.20
1990	69.59	77.27	14.21	18.44
1995	69.95	77.66	14.41	18.69
2000	70.30	78.04	14.60	18.93
2005	70.46	78.29	14.69	19.09
2010	70.61	78.54	14.78	19.25
2015	70.77	78.78	14.88	19.42
2020	70.92	79.03	14.97	19.58
2025	71.08	79.28	15.06	19.74
2030	71.19	79.50	15.14	19.89
2035	71.31	79.73	15.22	20.04
2040	71.42	79.95	15.29	20.20
2045	71.54	80.18	15.37	20.35
2050	71.65	80.40	15.45	20.50

TABLE 7A

Abridged Life Tables Based on the 1978 Trustees Report Mortality Projections: 1977

Period of Life Between Two Exact Ages Stated in Years <u>x to x+n</u>	Proportion of Persons Alive at Beginning of Age Interval Dying During Interval $n^q_x$	Of 100,000 Born Alive		Average Number of Years of Life Remaining at Beginning of Age Interval $o$ $e_x$	Proportion of Persons Alive At Beginning of Age Interval Dying During Interval $n^q_x$	Of 100,000 Born Alive		Average Number of Years of Life Remaining at Beginning of Age Interval $o$ $e_x$
		Number Living at Beginning of Age Interval $l_x$	Stationary Population in the Age Interval $n^L_x$			Number Living at Beginning of Age Interval $l_x$	Stationary Population in the Age Interval $n^L_x$	
		<u>MALES</u>				<u>FEMALES</u>		
0-1	0.01713	100,000	98,458	69.39	0.01389	100,000	98,750	76.76
1-5	.00295	98,287	392,446	69.60	.00246	98,611	393,856	76.84
5-10	.00200	97,997	489,467	65.80	.00141	98,368	491,464	73.02
10-15	.00217	97,801	488,589	60.93	.00124	98,229	490,870	68.12
15-20	.00699	97,589	486,428	56.05	.00265	98,107	489,932	63.20
20-25	.00992	96,907	482,172	51.43	.00327	97,847	488,449	58.36
25-30	.00946	95,946	477,431	46.92	.00362	97,527	486,775	53.55
30-35	.00974	95,038	472,935	42.34	.00475	97,174	484,778	48.73
35-40	.01307	94,112	467,670	37.73	.00710	96,712	481,974	43.95
40-45	.01976	92,882	460,155	33.20	.01149	96,025	477,576	39.25
45-50	.03127	91,047	448,624	28.81	.01768	94,922	470,685	34.67
50-55	.04851	88,200	430,998	24.66	.02618	93,244	460,501	30.25
55-60	.07412	83,921	405,034	20.78	.03926	90,803	445,658	25.99
60-65	.11346	77,701	367,470	17.23	.05808	87,238	424,109	21.94
65-70	.15960	68,885	317,970	14.10	.08111	82,171	395,241	18.14
70-75	.23401	57,891	256,445	11.29	.13439	75,506	353,807	14.50
75-80	.32787	44,344	185,224	8.95	.21322	65,359	293,334	11.34
80-85	.42875	29,805	115,852	7.10	.31597	51,423	217,028	8.71
85 & Over	1.00000	17,026		5.63	1.00000	35,175		6.56

TABLE 7B

Abridged Life Tables Based on the 1978 Trustees Report Mortality Projections: 2000

Period of Life Between Two Exact Ages Stated in Years <u>x to x+n</u>	Proportion of Persons Alive at Beginning of Age Interval Dying During Interval <u><math>nq_x</math></u>	Of 100,000 Born Alive		Average Number of Years of Life Remaining at Beginning of Age Interval <u><math>o</math> <math>e_x</math></u>	Proportion of Persons Alive At Beginning of Age Interval Dying During Interval <u><math>nq_x</math></u>	Of 100,000 Born Alive		Average Number of Years of Life Remaining at Beginning of Age Interval <u><math>o</math> <math>e_x</math></u>	
		Number Living at Beginning of Age Interval <u><math>l_x</math></u>	Stationary Population in the Age Interval <u><math>nL_x</math></u>			Number Living at Beginning of Age Interval <u><math>l_x</math></u>	Stationary Population in the Age Interval <u><math>nL_x</math></u>		
		<u>MALES</u>				<u>FEMALES</u>			
0-1	0.01363	100,000	98,773	70.30	0.01124	100,000	98,989	78.04	
1-5	.00266	98,637	393,914	70.27	.00211	98,876	394,998	77.92	
5-10	.00186	98,375	491,395	66.46	.00128	98,667	492,996	74.08	
10-15	.00209	98,192	490,570	61.58	.00113	98,541	492,459	69.18	
15-20	.00731	97,987	488,344	56.70	.00250	98,430	491,583	64.25	
20-25	.01036	97,271	483,869	52.10	.00312	98,184	490,168	59.41	
25-30	.00974	96,263	478,930	47.62	.00339	97,878	488,580	54.58	
30-35	.00979	95,325	474,343	43.06	.00439	97,546	486,720	49.76	
35-40	.01276	94,392	469,117	38.46	.00654	97,118	484,124	44.97	
40-45	.01877	93,188	461,864	33.92	.01052	96,483	480,069	40.25	
45-50	.02918	91,439	450,999	29.52	.01626	95,468	473,706	35.65	
50-55	.04548	88,771	434,422	25.33	.02396	93,916	464,317	31.19	
55-60	.06926	84,734	409,924	21.41	.03615	91,666	450,561	26.89	
60-65	.10571	78,865	374,439	17.80	.05289	88,352	430,587	22.80	
65-70	.14849	70,528	327,536	14.60	.07277	83,679	404,191	18.93	
70-75	.22131	60,055	268,024	11.69	.12341	77,590	365,621	15.20	
75-80	.31167	46,764	197,414	9.28	.19450	68,015	308,363	11.97	
80-85	.41384	32,189	126,568	7.35	.28803	54,786	235,336	9.23	
85 & Over	1.00000	18,868		5.83	1.00000	39,006		6.93	

TABLE 7C

Abridged Life Tables Based on the 1978 Trustees Report Mortality Projections: 2050

Period of Life Between Two Exact Ages Stated in Years <u>x to x+n</u>	Proportion of Persons Alive at Beginning of Age Interval Dying During Interval $n^d_x$	Of 100,000 Born Alive		Average Number of Years of Life Remaining at Beginning of Age Interval $o$ $e_x$	Proportion of Persons Alive At Beginning of Age Interval Dying During Interval $n^d_x$	Of 100,000 Born Alive		Average Number of Years of Life Remaining at Beginning of Age Interval $o$ $e_x$
		Number Living at Beginning of Age Interval $l_x$	Stationary Population in the Age Interval $n^L_x$			Number Living at Beginning of Age Interval $l_x$	Stationary Population in the Age Interval $n^L_x$	
<u>MALES</u>				<u>FEMALES</u>				
0-1	.00900	100,000	99,190	71.65	.00755	100,000	99,320	80.40
1-5	.00212	99,100	395,892	71.30	.00155	99,245	396,607	80.01
5-10	.00161	98,890	494,037	67.45	.00104	99,091	495,184	76.13
10-15	.00199	98,731	493,317	62.55	.00092	98,988	494,740	71.21
15-20	.00821	98,535	490,886	57.67	.00225	98,897	493,974	66.27
20-25	.01163	97,726	485,820	53.12	.00290	98,674	492,669	61.41
25-30	.01066	96,589	480,314	48.72	.00307	98,388	491,199	56.59
30-35	.01035	95,559	475,347	44.22	.00382	98,086	489,541	51.75
35-40	.01255	94,570	470,012	39.65	.00561	97,711	487,288	46.94
40-45	.01742	93,383	463,089	35.12	.00895	97,163	483,806	42.19
45-50	.02603	91,756	453,230	30.70	.01382	96,293	478,344	37.55
50-55	.04086	89,368	438,318	26.45	.02017	94,962	470,341	33.04
55-60	.06204	85,716	416,126	22.46	.03088	93,047	458,501	28.66
60-65	.09418	80,398	383,933	18.77	.04425	90,174	441,270	24.49
65-70	.13189	72,826	341,243	15.45	.05892	86,184	419,160	20.50
70-75	.20163	63,221	285,367	12.40	.10439	81,106	385,863	16.62
75-80	.28579	50,474	216,609	9.88	.16177	72,639	335,065	13.24
80-85	.38744	36,049	144,522	7.83	.23829	60,888	269,523	10.30
85 & Over	1.00000	22,082		6.23	1.00000	46,379		7.71

TABLE 8A

Probability of Death Within One Year  
(Complement of Survival Factor)  
By Single Year of Age for 1977 and 2050  
(Per 100,000 Exposed)

MALES

<u>Age</u>	<u>1977</u>	<u>2050</u>	<u>Age</u>	<u>1977</u>	<u>2050</u>	<u>Age</u>	<u>1977</u>	<u>2050</u>
* *	1,542	810	33	206	213	67	3,510	2,857
0	234	134	34	219	221	68	3,825	3,146
1	100	71	35	234	232	69	4,181	3,481
2	64	46	36	251	244	70	4,560	3,838
3	50	36	37	271	258	71	4,960	4,208
4	45	33	38	293	273	72	5,381	4,584
5	43	34	39	317	291	73	5,823	4,964
6	42	35	40	345	312	74	6,297	5,358
7	40	33	41	377	336	75	6,814	5,783
8	36	29	42	413	362	76	7,358	6,240
9	31	23	43	453	390	77	7,905	6,723
10	28	20	44	498	422	78	8,446	7,235
11	31	23	45	547	457	79	9,004	7,788
12	42	38	46	601	497	80	9,605	8,393
13	62	64	47	658	544	81	10,244	9,026
14	87	97	48	720	598	82	10,898	9,652
15	111	129	49	788	657	83	11,564	10,254
16	134	158	50	861	722	84	12,246	10,851
17	153	181	51	941	791	85	12,957	11,476
18	167	198	52	1,027	864	86	13,715	12,146
19	180	213	53	1,120	941	87	14,544	12,872
20	192	227	54	1,220	1,021	88	15,466	13,675
21	202	237	55	1,325	1,108	89	16,479	14,547
22	206	241	56	1,443	1,204	90	17,560	15,471
23	204	238	57	1,581	1,316	91	18,709	16,460
24	200	231	58	1,738	1,443	92	19,932	17,541
25	195	223	59	1,913	1,585	93	21,216	18,732
26	190	215	60	2,100	1,738	94	22,476	20,037
27	187	210	61	2,290	1,892	95	23,198	21,238
28	186	207	62	2,475	2,037	96	23,252	21,750
29	186	205	63	2,655	2,175	97	23,239	21,693
30	187	204	64	2,835	2,309	98	23,239	21,693
31	190	204	65	3,026	2,452	99	23,239	21,693
32	196	207	66	3,245	2,627	100	23,239	21,693

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

TABLE 8B

Probability of Death Within One Year  
(Complement of Survival Factor)  
By Single Year of Age for 1977 and 2050

FEMALES

<u>Age</u>	<u>1977</u>	<u>2050</u>	<u>Age</u>	<u>1977</u>	<u>2050</u>	<u>Age</u>	<u>1977</u>	<u>2050</u>
**	1,250	680	33	105	84	67	1,715	1,223
0	191	107	34	113	90	68	1,916	1,398
1	83	52	35	123	97	69	2,151	1,609
2	53	33	36	134	106	70	2,402	1,834
3	42	26	37	147	116	71	2,672	2,064
4	36	23	38	163	128	72	2,970	2,295
5	32	23	39	180	141	73	3,295	2,525
6	29	22	40	199	155	74	3,649	2,765
7	27	21	41	219	170	75	4,032	3,029
8	24	19	42	241	187	76	4,442	3,310
9	22	16	43	263	205	77	4,875	3,602
10	21	15	44	287	224	78	5,335	3,907
11	21	15	45	313	246	79	5,825	4,223
12	24	18	46	341	267	80	6,356	4,555
13	30	23	47	370	289	81	6,935	4,946
14	38	30	48	399	310	82	7,572	5,448
15	45	38	49	431	332	83	8,274	6,076
16	52	44	50	466	356	84	9,062	6,820
17	57	49	51	504	384	85	9,951	7,651
18	60	52	52	547	419	86	10,911	8,536
19	61	54	53	594	459	87	11,890	9,438
20	63	56	54	645	503	88	12,866	10,338
21	65	58	55	700	550	89	13,885	11,300
22	67	59	56	759	598	90	15,029	12,415
23	67	60	57	825	649	91	16,287	13,641
24	68	60	58	898	701	92	17,588	14,864
25	69	60	59	978	759	93	18,895	16,026
26	71	60	60	1,068	825	94	20,152	17,137
27	73	61	61	1,156	887	95	21,096	18,283
28	76	64	62	1,236	935	96	21,413	18,903
29	81	66	63	1,307	971	97	21,375	18,850
30	86	70	64	1,377	1,001	98	21,375	18,849
31	91	74	65	1,456	1,037	99	21,375	18,849
32	98	78	66	1,563	1,104	100	21,375	18,849

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

TABLE 9

Projected Annual Number and Crude Rate of Births,  
Migration, Deaths, and Net Increases

Year	Number (In Thousands)				Rate (Per Thousand)			
	Births	Migra.	Deaths	Increase	Births	Migra.	Deaths	Increase
Alternative I - 2.3 Ultimate Fertility								
1975	3,214	400	2,010	1,604	14.44	1.80	9.03	7.21
1980	3,658	400	2,087	1,971	15.79	1.73	9.01	8.51
1985	4,064	400	2,247	2,217	16.77	1.65	9.28	9.15
1990	4,235	400	2,392	2,243	16.70	1.58	9.43	8.85
1995	4,173	400	2,532	2,041	15.79	1.51	9.58	7.72
2000	4,110	400	2,669	1,841	15.00	1.46	9.74	6.72
2025	4,864	400	3,483	1,781	15.07	1.24	10.79	5.52
2050	5,651	400	4,158	1,893	15.40	1.09	11.33	5.16
Alternative II - 2.1 Ultimate Fertility								
1975	3,214	400	2,010	1,604	14.44	1.80	9.03	7.21
1980	3,595	400	2,086	1,909	15.52	1.73	9.01	8.24
1985	3,871	400	2,244	2,027	16.02	1.66	9.29	8.39
1990	3,942	400	2,387	1,955	15.67	1.59	9.49	7.77
1995	3,835	400	2,526	1,709	14.70	1.53	9.68	6.55
2000	3,742	400	2,662	1,480	13.92	1.49	9.91	5.50
2025	4,068	400	3,457	1,011	13.43	1.32	11.41	3.34
2050	4,364	400	4,054	710	13.54	1.24	12.58	2.20
Alternative III - 1.7 Ultimate Fertility								
1975	3,214	400	2,010	1,604	14.44	1.80	9.03	7.21
1980	3,467	400	2,084	1,783	14.98	1.73	9.00	7.70
1985	3,486	400	2,238	1,648	14.51	1.67	9.32	6.86
1990	3,357	400	2,377	1,380	13.55	1.61	9.60	5.57
1995	3,160	400	2,514	1,046	12.45	1.58	9.90	4.12
2000	3,015	400	2,648	767	11.67	1.55	10.25	2.97
2025	2,702	400	3,410	-308	10.15	1.50	12.81	-1.16
2050	2,428	400	3,863	-1,035	9.87	1.62	15.69	-4.20

TABLE 10

## Assumed Annual Net Immigration

<u>AGE</u>	<u>MALES</u>	<u>FEMALES</u>
0-4	25,752	25,709
5-9	16,987	16,861
10-14	18,228	17,443
15-19	19,186	21,253
20-24	20,673	31,141
25-29	32,217	34,459
30-34	20,020	19,397
35-39	12,260	12,648
40-44	7,695	8,358
45-49	5,426	6,913
50-54	4,167	6,275
55-59	2,968	4,903
60-64	2,134	3,708
65-69	549	1,267
70-74	383	642
75-79	-22	195
80-84	26	179
85 & Over	0	0
Total	188,649	211,351

TABLE 11  
Projections of the Total Population by Broad Age Groups

Year	Population (in thousands as of July 1)			Total	Dependency ratio	
	Under 20	20-64	65 and over		Aged <sup>1/</sup>	Total <sup>2/</sup>
Alternative I - 2.3 Ultimate Fertility						
1977	76,024	126,037	24,105	226,166	.191	.794
1978	75,092	128,207	24,641	227,940	.192	.778
1979	74,287	130,351	25,160	229,798	.193	.763
1980	73,613	132,445	25,675	231,733	.194	.750
1985	72,108	142,061	28,145	242,314	.198	.706
1990	74,679	148,180	30,708	253,567	.207	.711
1995	78,788	153,171	32,392	264,351	.211	.726
2000	82,311	158,706	32,960	273,977	.208	.726
2005	83,781	165,750	33,633	283,163	.203	.708
2010	85,143	171,791	36,045	292,978	.210	.705
2015	87,564	175,080	40,739	303,383	.233	.733
2020	91,010	176,131	46,409	313,550	.263	.780
2025	94,340	176,109	52,430	322,878	.298	.833
2030	96,796	177,856	56,871	331,523	.320	.864
2035	98,935	183,049	58,048	340,031	.317	.858
2040	101,603	189,772	57,375	348,749	.302	.838
2045	104,909	196,309	56,483	357,702	.288	.822
2050	108,289	201,250	57,420	366,958	.285	.823
2055	111,276	205,921	59,454	376,651	.289	.829
Alternative II - 2.1 Ultimate Fertility						
1977	76,024	126,037	24,105	226,166	.191	.794
1978	75,092	128,207	24,641	227,940	.192	.778
1979	74,262	130,351	25,160	229,773	.193	.763
1980	73,538	132,445	25,675	231,659	.194	.749
1985	71,398	142,061	28,145	241,603	.198	.701
1990	72,753	148,180	30,708	251,641	.207	.698
1995	75,292	153,171	32,392	260,855	.211	.703
2000	77,168	158,632	32,960	268,760	.208	.694
2005	77,295	165,049	33,633	275,977	.204	.672
2010	77,384	169,893	36,045	283,321	.212	.668
2015	78,306	171,642	40,739	290,687	.237	.694
2020	79,986	171,011	46,409	297,406	.271	.739
2025	81,517	169,072	52,430	303,019	.310	.792
2030	82,334	168,420	56,871	307,625	.338	.827
2035	82,892	170,675	58,048	311,615	.340	.826
2040	83,813	174,096	57,375	315,284	.330	.811
2045	85,158	177,182	56,425	318,765	.318	.799
2050	86,512	178,854	56,880	322,246	.318	.802
2055	87,552	180,272	58,047	325,871	.322	.808
Alternative III - 1.7 Ultimate Fertility						
1977	76,024	126,037	24,105	226,166	.191	.794
1978	75,092	128,207	24,641	227,940	.192	.778
1979	74,213	130,351	25,160	229,724	.193	.762
1980	73,388	132,445	25,675	231,509	.194	.748
1985	69,975	142,061	28,145	240,181	.198	.691
1990	68,899	148,180	30,708	247,787	.207	.672
1995	68,298	153,171	32,392	253,861	.211	.657
2000	66,895	158,484	32,960	258,339	.208	.630
2005	64,455	163,645	33,633	261,733	.206	.599
2010	62,333	166,096	36,045	264,473	.217	.592
2015	60,862	164,765	40,739	266,365	.247	.617
2020	59,814	160,785	46,409	267,008	.289	.661
2025	58,637	155,124	52,430	266,191	.338	.716
2030	57,106	150,005	56,871	263,982	.379	.760
2035	55,560	146,980	58,048	260,588	.395	.773
2040	54,292	144,601	57,375	256,268	.397	.772
2045	53,262	141,765	56,308	251,335	.397	.773
2050	52,246	138,129	55,799	246,174	.404	.782
2055	51,120	134,651	55,231	241,003	.410	.790

1/ Population 65 and over as ratio to population 20-64.

2/ Population 65 and over plus those under 20 as ratio to population 20-64.

TABLE 12A

Projected Male Population in the Social Security Area  
 Alternative I - 2.3 Ultimate Fertility  
 (in thousands)

Age Group	1977	1980	1985	1990	1995	2000	2025	2050
0-4	8,311	8,682	9,864	10,591	10,718	10,491	12,332	14,286
5-9	9,249	8,687	8,751	9,930	10,656	10,783	12,323	14,092
10-14	10,142	9,402	8,760	8,824	10,001	10,726	12,092	13,759
15-19	11,097	10,810	9,454	8,814	8,879	10,050	11,465	13,219
20-24	10,573	11,011	10,811	9,466	8,831	8,894	10,794	12,684
25-29	9,516	10,163	11,043	10,843	9,511	8,881	10,694	12,470
30-34	8,126	9,114	10,196	11,066	10,868	9,548	10,936	12,403
35-39	6,492	7,376	9,087	10,156	11,017	10,820	10,769	12,055
40-44	5,829	6,061	7,305	8,990	10,043	10,890	9,974	11,300
45-49	5,961	5,723	5,942	7,158	8,804	9,834	8,699	10,479
50-54	5,932	5,861	5,523	5,738	6,911	8,500	8,352	10,038
55-59	5,484	5,638	5,529	5,215	5,423	6,534	8,455	9,729
60-64	4,548	4,759	5,134	5,042	4,761	4,958	8,798	8,878
65-69	3,740	3,884	4,135	4,467	4,395	4,159	7,879	7,380
70-74	2,620	2,894	3,146	3,360	3,635	3,586	5,989	5,472
75-79	1,666	1,782	2,104	2,292	2,459	2,666	3,987	4,068
80-84	1,027	1,031	1,123	1,332	1,456	1,571	2,098	2,877
85-89	489	527	544	597	712	782	946	1,810
90-94	159	194	220	228	253	304	392	834
95-99	28	40	59	67	71	79	133	258
100+	4	6	12	19	24	26	50	86
Total	110,998	113,645	118,742	124,195	129,428	134,082	157,157	178,177
0-19	38,799	37,581	36,829	38,159	40,254	42,050	48,212	55,356
20-64	62,466	65,706	70,570	73,674	76,169	78,859	87,471	100,036
0-64	101,265	103,287	107,399	111,833	116,423	120,909	135,683	155,392
65+	9,733	10,358	11,343	12,362	13,005	13,173	21,474	22,785

TABLE 12B

Projected Female Population in the Social Security Area  
 Alternative I - 2.3 Ultimate Fertility  
 (in thousands)

Age Group	1977	1980	1985	1990	1995	2000	2025	2050
0-4	7,926	8,291	9,428	10,121	10,241	10,023	11,774	13,632
5-9	8,862	8,299	8,366	9,501	10,194	10,314	11,779	13,462
10-14	9,741	9,031	8,375	8,442	9,576	10,268	11,566	13,153
15-19	10,696	10,410	9,110	8,455	8,523	9,655	11,008	12,686
20-24	10,308	10,721	10,514	9,219	8,566	8,634	10,480	12,310
25-29	9,390	10,004	10,856	10,651	9,360	8,709	10,497	12,238
30-34	8,080	9,046	10,093	10,942	10,738	9,452	10,801	12,256
35-39	6,520	7,396	9,069	10,110	10,955	10,753	10,700	11,989
40-44	5,871	6,139	7,380	9,039	10,072	10,911	9,989	11,328
45-49	6,045	5,799	6,089	7,314	8,952	9,974	8,807	10,619
50-54	6,243	6,102	5,708	5,995	7,197	8,806	8,605	10,350
55-59	5,933	6,116	5,936	5,557	5,839	7,009	8,991	10,305
60-64	5,181	5,417	5,847	5,680	5,323	5,598	9,770	9,818
65-69	4,645	4,780	5,070	5,477	5,328	5,002	9,389	8,734
70-74	3,602	3,996	4,294	4,566	4,940	4,815	7,897	7,141
75-79	2,679	2,819	3,333	3,591	3,834	4,158	6,050	6,099
80-84	1,905	1,958	2,105	2,507	2,714	2,919	3,849	5,216
85-89	1,063	1,153	1,232	1,338	1,609	1,753	2,132	4,056
90-94	385	477	559	604	663	806	1,036	2,232
95-99	81	113	167	198	216	240	411	815
100+	12	21	41	64	82	94	192	342
Total	115,168	118,088	123,572	129,371	134,922	139,893	165,723	188,781
0-19	37,225	36,031	35,279	36,519	38,534	40,260	46,127	52,933
20-64	63,571	66,740	71,492	74,507	77,002	79,846	88,640	101,213
0-64	100,796	102,771	106,771	111,026	115,536	120,106	134,767	154,146
65+	14,372	15,317	16,801	18,345	19,386	19,787	30,956	34,635

TABLE 12C

Projected Total Population in the Social Security Area  
 Alternative I - 2.3 Ultimate Fertility  
 (in thousands)

Age Group	1977	1980	1985	1990	1995	2000	2025	2050
0-4	16,237	18,973	19,292	20,712	20,959	20,514	24,106	27,918
5-9	18,111	16,986	17,117	19,431	20,850	21,097	24,102	27,554
10-14	19,883	18,433	17,135	17,266	19,577	20,994	23,658	26,912
15-19	21,793	21,220	18,564	17,269	17,402	19,705	22,473	25,905
20-24	20,886	21,732	21,325	18,685	17,397	17,528	21,274	24,994
25-29	18,906	20,167	21,899	21,494	18,871	17,590	21,191	24,708
30-34	16,206	18,160	20,289	22,008	21,606	19,000	21,737	24,659
35-39	13,012	14,772	18,156	20,266	21,972	21,573	21,469	24,044
40-44	11,700	12,200	14,685	18,029	20,115	21,801	19,963	22,628
45-49	12,006	11,522	12,031	14,472	17,756	19,803	17,506	21,098
50-54	12,175	11,963	11,231	11,733	14,108	17,306	16,957	20,388
55-59	11,417	11,754	11,465	10,772	11,262	13,543	17,446	20,034
60-64	9,729	10,176	10,981	10,722	10,084	10,556	18,568	18,696
65-69	8,385	8,664	9,205	9,944	9,723	9,161	17,268	16,114
70-74	6,222	6,890	7,440	7,926	8,575	8,401	13,886	12,613
75-79	4,345	4,601	5,437	5,883	6,293	6,824	10,037	10,167
80-84	2,932	2,989	3,228	3,839	4,170	4,490	5,947	8,093
85-89	1,552	1,680	1,776	1,935	2,321	2,535	3,078	5,866
90-94	544	671	779	832	916	1,110	1,428	3,066
95-99	109	153	226	265	287	319	544	1,073
100+	16	27	53	83	106	120	242	428
Total	226,166	231,733	242,314	253,566	264,350	273,975	322,880	366,958
0-19	76,024	73,612	72,108	74,678	78,788	82,310	94,339	108,289
20-64	126,037	132,446	142,062	148,181	153,171	158,705	176,111	201,249
0-64	202,061	206,058	214,170	222,859	231,959	241,015	270,450	309,538
65+	24,105	25,675	28,144	30,707	32,391	32,960	52,430	57,420

TABLE 12D

Projected Male Population in the Social Security Area  
 Alternative II - 2.1 Ultimate Fertility  
 (in thousands)

Age Group	1977	1980	1985	1990	1995	2000	2025	2050
0-4	8,311	8,644	9,539	9,969	9,913	9,607	10,394	11,129
5-9	9,249	8,687	8,713	9,605	10,035	9,980	10,537	11,154
10-14	10,142	9,402	8,760	8,786	9,678	10,107	10,525	11,082
15-19	11,097	10,810	9,454	8,814	8,841	9,728	10,200	10,854
20-24	10,578	11,011	10,811	9,466	8,831	8,857	9,798	10,606
25-29	9,516	10,163	11,043	10,843	9,511	8,881	9,835	10,590
30-34	8,126	9,114	10,196	11,066	10,868	9,548	10,162	10,683
35-39	6,492	7,376	9,087	10,156	11,017	10,820	10,177	10,560
40-44	5,829	6,061	7,305	8,990	10,043	10,890	9,669	10,105
45-49	5,961	5,723	5,942	7,158	8,804	9,834	8,663	9,549
50-54	5,932	5,861	5,523	5,738	6,811	8,500	8,352	9,254
55-59	5,484	5,638	5,529	5,215	5,423	6,534	8,455	9,052
60-64	4,548	4,759	5,134	5,042	4,761	4,958	8,798	8,395
65-69	3,740	3,884	4,135	4,467	4,395	4,159	7,879	7,154
70-74	2,620	2,894	3,146	3,360	3,635	3,586	5,989	5,449
75-79	1,666	1,782	2,104	2,292	2,459	2,666	3,987	4,068
80-84	1,027	1,031	1,123	1,332	1,456	1,571	2,098	2,877
85-89	489	527	544	597	712	782	946	1,810
90-94	159	194	220	228	253	304	392	834
95-99	28	40	59	67	71	79	133	258
100+	4	6	12	19	24	26	50	86
Total	110,998	113,607	118,379	123,210	127,641	131,417	147,039	155,549
0-19	38,799	37,543	36,466	37,174	38,467	39,422	41,656	44,219
20-64	62,466	69,706	70,570	73,674	76,169	78,822	83,909	88,794
0-64	101,265	103,249	107,036	110,848	114,636	118,244	125,565	133,013
65+	9,733	10,358	11,343	12,362	13,005	13,173	21,474	22,536

TABLE 12E

Projected Female Population in the Social Security Area  
 Alternative II - 2.1 Ultimate Fertility  
 (in thousands)

Age Group	<u>1977</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2025</u>	<u>2050</u>
0-4	7,926	8,255	9,117	9,526	9,472	9,178	9,924	10,621
5-9	8,862	8,299	8,330	9,191	9,600	9,547	10,073	10,657
10-14	9,741	9,031	8,375	8,406	9,266	9,675	10,069	10,596
15-19	10,696	10,410	9,110	8,455	8,487	9,346	9,795	10,420
20-24	10,308	10,721	10,514	9,219	8,566	8,597	9,518	10,303
25-29	9,390	10,004	10,856	10,651	9,360	8,709	9,661	10,406
30-34	8,080	9,046	10,093	10,942	10,738	9,452	10,043	10,570
35-39	6,520	7,396	9,069	10,110	10,955	10,753	10,117	10,515
40-44	5,871	6,139	7,380	9,039	10,072	10,811	9,686	10,141
45-49	6,045	5,799	6,089	7,314	8,952	9,974	8,771	9,686
50-54	6,243	6,102	5,708	5,995	7,197	8,806	8,605	9,550
55-59	5,933	6,116	5,936	5,557	5,839	7,009	8,991	9,597
60-64	5,181	5,417	5,847	5,680	5,323	5,598	9,770	9,291
65-69	4,645	4,780	5,070	5,477	5,328	5,002	9,389	8,472
70-74	3,602	3,996	4,294	4,566	4,940	4,815	7,897	7,112
75-79	2,679	2,819	3,333	3,591	3,834	4,153	6,050	6,099
80-84	1,905	1,958	2,105	2,507	2,714	2,919	3,849	5,216
85-89	1,063	1,153	1,232	1,338	1,609	1,753	2,132	4,056
90-94	385	477	559	604	663	806	1,036	2,232
95-99	81	113	167	198	216	240	411	815
100+	12	21	41	64	82	94	192	342
Total	115,168	118,052	123,225	128,430	133,213	137,342	155,979	166,697
0-19	37,225	35,995	34,932	35,578	36,825	37,746	39,861	42,294
20-64	63,571	66,740	71,492	74,507	77,002	79,809	85,162	90,059
0-64	100,796	102,735	106,424	110,085	113,827	117,555	125,023	132,353
65+	14,372	15,317	16,801	18,345	19,386	19,787	30,956	34,344

TABLE 12F

Projected Total Population in the Social Security Area  
 Alternative II - 2.1 Ultimate Fertility  
 (in thousands)

Age Group	1977	1980	1985	1990	1995	2000	2025	2050
0-4	16,237	16,899	18,656	19,495	19,385	18,785	20,318	21,750
5-9	18,111	16,986	17,043	18,796	19,635	19,527	20,610	21,811
10-14	19,883	18,433	17,135	17,192	18,944	19,782	20,594	21,678
15-19	21,793	21,220	18,564	17,269	17,328	19,074	19,995	21,274
20-24	20,886	21,732	21,325	18,685	17,397	17,454	19,316	20,909
25-29	18,906	20,167	21,899	21,494	18,871	17,590	19,496	20,996
30-34	16,206	18,160	20,289	22,008	21,606	18,000	20,205	21,253
35-39	13,012	14,772	18,156	20,266	21,972	21,573	20,294	21,075
40-44	11,700	12,200	14,685	18,029	20,115	21,801	19,355	20,246
45-49	12,006	11,522	12,031	14,472	17,756	19,808	17,434	19,236
50-54	12,175	11,963	11,231	11,733	14,108	17,306	16,957	18,804
55-59	11,417	11,754	11,465	10,772	11,262	13,543	17,446	18,649
60-64	9,729	10,176	10,981	10,722	10,084	10,556	18,568	17,686
65-69	8,385	8,664	9,205	9,944	9,723	9,161	17,268	15,626
70-74	6,222	6,890	7,440	7,926	8,575	8,401	13,886	12,561
75-79	4,345	4,601	5,437	5,883	6,293	6,824	10,037	10,167
80-84	2,932	2,989	3,228	3,839	4,170	4,490	5,947	8,093
85-89	1,552	1,680	1,776	1,935	2,321	2,535	3,078	5,866
90-94	544	671	779	832	916	1,110	1,428	3,066
95-99	109	153	226	265	287	319	544	1,073
100+	16	27	53	83	106	120	242	428
Total	226,166	231,659	241,604	251,640	260,854	268,759	303,018	322,246
0-19	76,024	73,538	71,398	72,752	75,292	77,168	81,517	86,513
20-64	126,037	132,446	142,062	148,181	153,171	158,631	169,071	178,853
0-64	202,061	205,984	213,460	220,933	228,463	235,799	250,588	265,366
65+	24,105	25,675	28,144	30,707	32,391	32,960	52,430	56,880

TABLE 12G

Projected Male Population in the Social Security Area  
 Alternative III - 1.7 Ultimate Fertility  
 (in thousands)

Age Group	1977	1980	1985	1990	1995	2000	2025	2050
0-4	8,311	8,567	8,887	8,723	8,303	7,846	7,034	6,327
5-9	9,249	8,687	8,636	8,956	8,793	8,375	7,384	6,584
10-14	10,142	9,402	8,760	8,710	9,030	8,867	7,699	6,815
15-19	11,097	10,810	9,454	8,814	8,765	9,082	7,841	6,971
20-24	10,578	11,011	10,811	9,466	8,831	8,781	7,864	7,088
25-29	9,516	10,163	11,043	10,843	9,511	8,881	8,125	7,330
30-34	8,126	9,114	10,196	11,066	10,868	9,548	8,614	7,648
35-39	6,492	7,376	9,087	10,156	11,017	10,820	8,993	7,865
40-44	5,828	6,061	7,305	8,990	10,043	10,890	9,058	7,877
45-49	5,961	5,723	5,942	7,158	8,804	9,834	8,593	7,744
50-54	5,932	5,861	5,523	5,738	6,911	8,500	8,352	7,694
55-59	5,484	5,638	5,529	5,215	5,423	6,534	8,455	7,698
60-64	4,548	4,759	5,134	5,042	4,761	4,958	8,798	7,428
65-69	3,740	3,884	4,135	4,467	4,395	4,159	7,879	6,702
70-74	2,620	2,894	3,146	3,360	3,635	3,586	5,989	5,402
75-79	1,666	1,782	2,104	2,292	2,459	2,666	3,987	4,068
80-84	1,027	1,031	1,123	1,332	1,456	1,571	2,098	2,877
85-89	489	527	544	597	712	782	946	1,810
90-94	159	194	220	228	253	304	392	834
95-99	28	40	59	67	71	79	133	258
100+	4	6	12	19	24	26	50	86
Total	110,998	113,530	117,650	121,239	124,065	126,089	128,284	117,106
0-19	38,799	37,466	35,737	35,203	34,891	34,170	29,958	26,697
20-64	62,466	65,706	70,570	73,674	76,169	78,746	76,852	68,372
0-64	101,265	103,172	106,307	108,877	111,060	112,916	106,810	95,069
65+	9,733	10,358	11,343	12,362	13,005	13,173	21,474	22,037

TABLE 12H

Projected Female Population in the Social Security Area  
 Alternative III - 1.7 Ultimate Fertility  
 (in thousands)

<u>Age Group</u>	<u>1977</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2025</u>	<u>2050</u>
0-4	7,926	8,181	8,495	8,337	7,934	7,496	8,717	6,039
5-9	8,862	8,299	8,257	8,571	8,413	8,012	7,061	6,294
10-14	9,741	9,031	8,375	8,333	8,646	8,489	7,368	6,519
15-19	10,696	10,410	9,110	8,455	8,414	8,727	7,533	6,697
20-24	10,308	10,721	10,514	9,219	8,566	8,525	7,651	6,904
25-29	9,390	10,004	10,856	10,651	9,360	8,709	7,997	7,231
30-34	8,080	9,046	10,093	10,942	10,738	9,452	8,527	7,594
35-39	6,520	7,396	9,069	10,110	10,955	10,753	8,951	7,855
40-44	5,871	6,139	7,380	9,039	10,072	10,911	9,081	7,926
45-49	6,045	5,799	6,089	7,314	8,952	9,974	8,701	7,874
50-54	6,243	6,102	5,708	5,995	7,197	8,806	8,605	7,959
55-59	5,933	6,116	5,936	5,557	5,839	7,009	8,991	8,179
60-64	5,181	5,417	5,847	5,680	5,323	5,598	9,770	8,236
65-69	4,645	4,780	5,070	5,477	5,328	5,002	9,389	7,94
70-74	3,602	3,996	4,294	4,566	4,940	4,815	7,897	7,054
75-79	2,679	2,819	3,333	3,591	3,834	4,158	6,050	6,099
80-84	1,905	1,958	2,105	2,507	2,714	2,919	3,849	5,216
85-89	1,063	1,153	1,232	1,338	1,609	1,753	2,132	4,056
90-94	385	477	559	604	663	806	1,036	2,232
95-99	81	113	167	198	216	240	411	815
100+	12	21	41	64	82	94	192	342
Total	115,168	117,978	122,530	126,548	129,795	132,248	137,909	129,069
0-19	37,225	35,921	34,237	33,696	33,407	32,724	28,679	25,549
20-64	63,571	66,740	71,492	74,507	77,002	79,737	78,274	69,758
0-64	100,796	102,661	105,729	108,203	110,409	112,461	106,953	95,307
65+	14,372	15,317	16,801	18,345	19,386	19,787	30,956	33,762

TABLE 12I

Projected Total Population in the Social Security Area  
 Alternative III - 1.7 Ultimate Fertility  
 (in thousands)

Age Group	1977	1980	1985	1990	1995	2000	2025	2050
0-4	16,237	16,748	17,382	17,060	16,237	15,342	13,751	12,366
5-9	18,111	16,986	16,893	17,527	17,206	16,387	14,445	12,878
10-14	19,883	18,433	17,135	17,043	17,676	17,356	15,067	13,334
15-19	21,793	21,220	18,564	17,269	17,179	17,809	15,374	13,668
20-24	20,886	21,732	21,325	18,685	17,397	17,306	15,515	13,992
25-29	18,906	20,167	21,899	21,494	18,871	17,590	16,122	14,561
30-34	16,206	18,160	20,289	22,008	21,606	18,000	17,141	15,242
35-39	13,012	14,772	18,156	20,266	21,972	21,573	17,944	15,720
40-44	11,700	12,200	14,685	18,029	20,115	21,801	18,139	15,803
45-49	12,006	11,522	12,031	14,472	17,756	19,808	17,294	15,618
50-54	12,175	11,963	11,231	11,733	14,108	17,306	16,957	15,653
55-59	11,417	11,754	11,465	10,772	11,262	13,543	17,446	15,877
60-64	9,729	10,176	10,981	10,722	10,084	10,556	18,568	15,664
65-69	8,385	8,664	9,205	9,944	9,723	9,161	17,268	14,650
70-74	6,222	6,890	7,440	7,926	8,575	8,401	13,886	12,456
75-79	4,345	4,601	5,437	5,883	6,293	6,824	10,037	10,167
80-84	2,932	2,989	3,228	3,839	4,170	4,490	5,947	8,093
85-89	1,552	1,680	1,776	1,935	2,321	2,535	3,078	5,866
90-94	544	671	779	832	916	1,110	1,428	3,066
95-99	109	153	226	265	287	319	544	1,073
100+	16	27	53	83	106	120	242	428
Total	226,166	231,508	240,180	247,787	253,860	258,337	266,193	246,175
0-19	76,024	73,387	69,974	68,899	68,298	66,894	58,637	52,246
20-64	126,037	132,446	142,062	148,181	153,171	158,483	155,126	138,130
0-64	202,061	205,833	212,036	217,080	221,469	225,377	213,763	109,376
65+	24,105	25,675	28,144	30,707	32,391	32,960	52,430	55,799

TABLE 13

Actual and Projected Sex Ratio of the  
Total Population and Aged Population  
(Males Per 1,000 Females)

<u>Year</u>	<u>Total Population</u>	<u>Population Aged 65 and Over</u>
Actual Ratios		
1900	1,045	1,022
1910	1,061	1,012
1920	1,043	1,013
1930	1,027	1,008
1940	1,012	955
1950	993	897
1960	976	830
1970	958	724
1977	966	685
Projected Ratios: Alternative II - 2.1 Ultimate Fertility		
1980	962	676
1990	959	673
2000	956	665
2010	953	669
2020	947	691
2030	937	686
2040	932	659
2050	933	656

TABLE 14

COMPARISON OF VARIOUS PROJECTIONS OF THE  
TOTAL POPULATION (IN MILLIONS)

<u>Projection</u>	<u>1975</u>	<u>2000</u>	<u>2025</u>
This Study	---	258-274	266-323
Actuarial Study #76, 1977	223	255-269	261-314
Actuarial Study #72, 1974	223	271	305
Actuarial Study #62, 1966	227-229	301-323	374-447
Actuarial Study #46, 1957	215-238	263-343	291-441
Actuarial Study #33, 1952	189-201	210-254	N.A.
Actuarial Study #24, 1946	147-191	124-241	N.A.
Bureau of the Census, 1977	---	246-283	252-373
Bureau of the Census, 1975	213-214	245-287	251-362
Bureau of the Census, 1972	213-216	251-301	265-392
Bureau of the Census, 1971	216-218	271-332	307-447
Bureau of the Census, 1970	215-219	266-321	299-440
Bureau of the Census, 1966	214-227	280-356	N.A.
Bureau of the Census, 1964	219-230	290-362	N.A.
Bureau of the Census, 1958	216-244	N.A.	N.A.
Bureau of the Census, 1955	207-228	N.A.	N.A.
Bureau of the Census, 1953	199-221	N.A.	N.A.

NOTES

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

The Actuarial Studies beginning with #46 include an adjustment for the net census undercount. Actuarial Studies from #33 on include population in the outlying areas such as Puerto Rico, which make up the Social Security area. These two factors cause the Actuarial Study projections to be 4 to 5 percent greater than similar Census Bureau projections.

N.A.--not available.

TABLE 15

COMPARISON OF VARIOUS PROJECTIONS OF THE  
POPULATION AGED 65 AND OVER (IN MILLIONS)

<u>Projection</u>	<u>1975</u>	<u>2000</u>	<u>2025</u>
This Study	---	33.0	52.4
Actuarial Study #76, 1977	23.0	32.0	50.8
Actuarial Study #72, 1974	22.9	31.0	47.9
Actuarial Study #62, 1966	22.0-22.3	29.6-31.8	46.8-51.5
Actuarial Study #46, 1957	22.0-23.3	29.5-35.2	42.1-54.6
Actuarial Study #33, 1952	20.1-20.6	25.8-28.0	N.A.
Actuarial Study #24, 1946	16.9-20.5	19.0-29.3	N.A.
Bureau of the Census, 1977	---	31.8	50.9
Bureau of the Census, 1975	22.3	30.6	48.1
Bureau of the Census, 1972	22.2	28.8	40.0
Bureau of the Census, 1971	21.9	28.8	40.3
Bureau of the Census, 1970	21.5	28.8	40.2
Bureau of the Census, 1966	21.2	N.A.	N.A.
Bureau of the Census, 1964	21.2	28.2	N.A.
Bureau of the Census, 1958	21.9	N.A.	N.A.
Bureau of the Census, 1955	20.7	N.A.	N.A.
Bureau of the Census, 1953	20.7	N.A.	N.A.

NOTES

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

The Actuarial Studies beginning with #46 include an adjustment for the net census undercount. Actuarial Studies from #33 on include population in the outlying areas such as Puerto Rico, which make up the Social Security area. These two factors cause the Actuarial Study projections to be 4 to 5 percent greater than similar Census Bureau projections.

N.A.--not available.