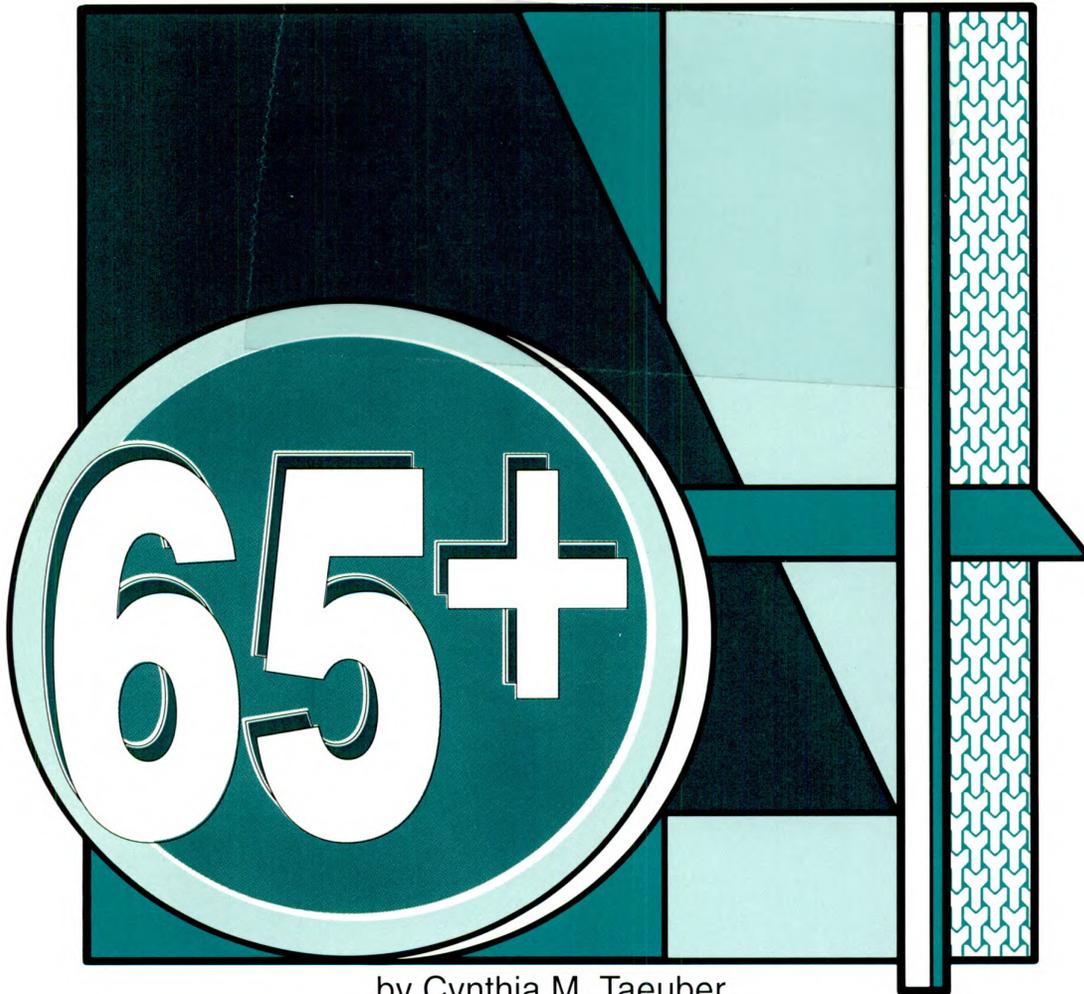


Sixty-Five Plus in America

(Revised based on projections from P25-1092 issued November 1992)



by Cynthia M. Taeuber

U.S. Department of Commerce
Economics and Statistics Administration
BUREAU OF THE CENSUS



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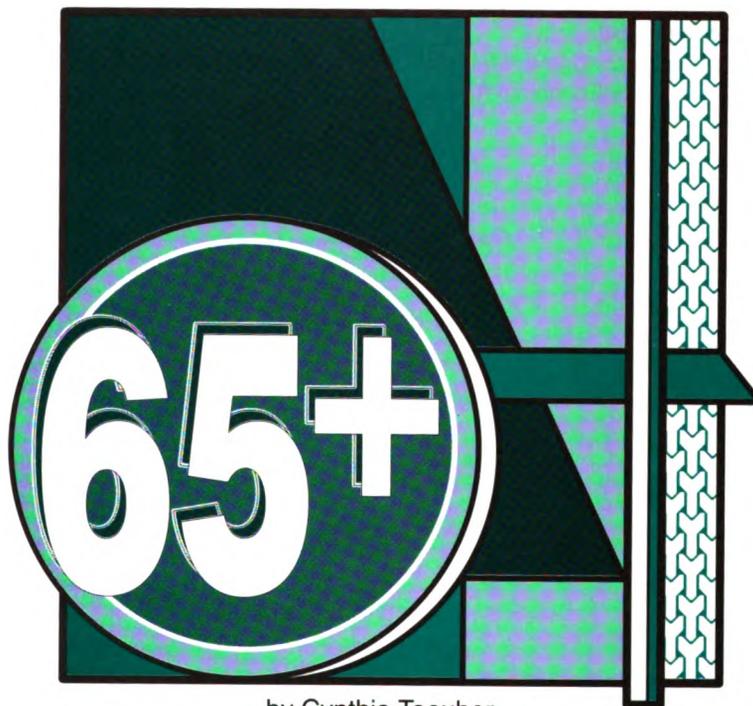
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Issued August 1992
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Symbols Used in Tables

- Represents zero or rounds to zero
- B Base less than 75,000
- C Confidence interval includes zero
- NA Not available
- X Not applicable
- r Revised

Highlights

Sixty-Five Plus in America

Numerical Growth

■ America is an aging society. In colonial times, half the population was under age 16; in 1990, less than 1 in 4 Americans were under age 16 and half were 33 or older; by 2050, at least half could be 39 or older.

■ The 1990 census counted 31.1 million elderly (aged 65 or older), 12.5 percent of the total population. Among the elderly, 18 million were aged 65 to 74, 10 million were aged 75 to 84, and 3 million were 85 or older.

■ The elderly population increased by 22 percent over the decade of the 1980's. We will experience undramatic growth of the older population from 1990 to 2010. From 2010 to 2030, however, the elderly population would grow 76 percent while the population under age 65 would increase 6.5 percent (under middle series projections).

■ The United States had 6.9 million persons aged 80 or older in 1990 and that population could grow to more than 29 million by 2050. One in 35 Americans were 80 or older in 1990; by 2050, at least 1 in 13 could be 80 or older.

■ Centenarians, those who had reached the exceptional age of 100 years or older, numbered 35,808 in 1990. The centenarian population more than doubled during the 1980's. This population group is 80 percent White and 79 percent female.

■ Nine states had more than 1 million elderly in 1990. California had the largest number of persons aged 65 or older (3.1 million). Florida had the largest proportion elderly (18 percent).

■ From 1980 to 1990, America's oldest old population (85 years and over) increased almost 38 percent.

Eight states had more than 100,000 persons aged 85 or older in 1990.

■ Six percent of the world's population is elderly. Nearly 332 million persons were aged 65 or older in the world in 1991. By the year 2000, there could be 426 million or more elderly. Over half the world's elderly live in developing nations.

Diversity of the Elderly Population

■ We are beginning to see more racial diversity within the elderly population. In 1990, 1 in 10 elderly persons were races other than White. That could increase to about 2 in 10 by the middle of the next century. Additionally, we expect a greater proportion of the elderly will be persons of Hispanic origin (who may be of any race).

■ About 1 in 5 elderly Blacks and Hispanics were 80 years or older in 1990. By 2050, these proportions could increase to about 1 in 3. The proportions for Whites are even higher (38 percent).

■ Elderly men are more likely than women to live in a family setting. After age 75, most men are married and living with their wives. Most women, however, are widowed and living alone.

■ Life expectancy at birth in 1989 was 79 years for White females, 74 years for Black females, 73 years for White males, and 65 years for Black males.

■ Poor health is not as prevalent as many assume, especially among the young old. Three in four noninstitutionalized persons aged 65 to 74 consider their health to be good, very good, or excellent. The same is the case for 2 in 3 noninstitutionalized persons aged 75 and over.

■ Nine of ten noninstitutionalized persons aged 65 to 74 reported they did not need personal assistance with everyday activities. Among those 85 years and over, however, nearly 1 in 4 live in a nursing home. Of the noninstitutionalized oldest old, 45 percent needed personal assistance with everyday activities.

■ Elderly women are likely to have long-term, chronic disabling diseases while men tend to develop relatively short-term fatal diseases.

■ Income differences are significant for population subgroups. The 1990 poverty rates were higher for elderly Blacks (33.8 ±0.8 percent) and Hispanics (22.5 ±0.7 percent) than for Whites (10.1 ±0.5 percent).

■ The educational attainment of the elderly population will increase significantly in the coming years because younger cohorts were more likely to have completed high school and attended college than is true for the elderly of today.

Implications

■ The elderly of tomorrow will have characteristics different from today's elderly. Such differences affect ultimate health and economic status.

■ Women are increasingly likely to have been in the labor force long enough to have retirement income in their own names.

■ The lifetime experiences in employment and earnings for older Whites are different from older Blacks and Hispanics. This generally means fewer resources at retirement age for Blacks and Hispanics.

■ The four-generation family will be common. More of the young-old, while in their early years of retirement, will face the concern and expense of caring for very old, frail relatives.

■ About 1 in 5 deaths occur after age 85. Under some projections, this proportion could more than double by 2050 due both to lower mortality and to the large number of surviving members of the Baby-Boom generation (those born between 1946 and 1964). This could affect the quality and financing of long lives.

■ As medical technology advances, we can expect more people to live to the oldest ages but be chronically ill and physically or mentally impaired. For many, the nature and duration of care could be more demanding than we have ever experienced. Where length of life has been an important societal issue in the

past, quality of life (active life expectancy) is an issue of increasing importance.

■ Women provide significant personal care to elderly family members. Some leave the work force to care for parents which can affect retirement benefits for their own old age.

Chapter 1.

Introduction

Diversity and growth are two terms that describe America's elderly population. "The elderly" is a commonly used label for the population 65 years and over. And yet, this is a heterogeneous population. We cannot understand the complexities of their social and economic diversity from sweeping generalizations about "the elderly." Each age, gender, race, and ethnic group has distinctive characteristics and the experience of aging is different among the demographic groups. Rural elderly have characteristics and needs different from those of urban elderly. Some older people have significant financial and health problems while others spend their winters skiing and their summers mountain climbing. Some stay in the paid work force until they die while most others have much leisure time which they fill with volunteer work, care of children and the frail elderly, puttering about, or in other activities that are personally satisfying. Others are bored, angry, or depressed. In short, "the elderly," like other age groups, are mixed in their needs, abilities, and resources. The distinguishing differences are in the level of needs, abilities, and resources.

Growth is another significant aspect of the elderly population, especially the oldest old. We have thought of ourselves as a nation of youth since the founding of this nation. In 1990, we had about as many children under 14 years as we had persons aged 60 or older (figure 1-1). Within the elderly population, the rate of growth of the oldest old (85 years and over) is stunning. Such considerable demographic forces bear on both individual and public policy choices. We, along with the rest of the world, have begun to experience the

changes in our culture that come with an aging society and affect all of us.

Ten major trends we will track in this report

1. There are more elderly than ever before in history.
2. The elderly are an increasing proportion of our population.
3. Growth of the elderly will be steady but undramatic until 2011 when the Baby Boom begins to reach age 65.
4. Elderly women outnumber elderly men.
5. More persons will survive to the oldest ages.
6. As more survive, more also face chronic illness and disabilities.
7. Issues surrounding the care of the frail elderly will become more prevalent. At the same time, the young old have become pacesetters in new ways to spend the retirement years.
8. The elderly population will be more diverse in terms of racial composition and Hispanic origin in the coming decades.
9. The educational attainment of the elderly population will increase significantly in the coming years because younger cohorts were more likely to have completed high school and attended college than is true for the elderly of today.
10. Some elderly are economically secure. Others, especially many of the oldest old, those living alone, Blacks, American Indians, some Asian groups, and Hispanics have relatively high rates of poverty.

As with the sheer size and rate of growth of the older population, the size of other age groups have also

changed radically over the decades. The Baby-Boom (born 1946 to 1964) has moved into middle age, the years for child rearing and establishing an economic base for retirement. The relatively small Baby-Bust cohort is beginning to enter the labor force. It is changes in fertility, mortality, and net migration that alter a country's age structure. Below, we will examine the growth of the elderly population and how it has occurred. We will focus on the diversity of America's older population in terms of age, race, gender, economic status, longevity, health characteristics, geographic distribution, and social characteristics. Throughout, we will examine possible implications of the demographic changes.

The data used in this report are primarily from the 1990 Census of Population and Housing and national surveys such as the Current Population Survey, the Survey of Income and Program Participation, the Health Interview Survey, and the Longitudinal Survey on Aging. The data used here reflect those available as of February 1992. This report summarizes numerous reports prepared by statisticians from the Census Bureau and other federal agencies with information about the elderly. It also includes information not previously released.

The estimates from the Current Population Survey for 1991 are inflated to national population controls by age, race, sex, and Hispanic origin. The population controls are based on results of the 1980 census carried forward to 1991. The estimates in this report, therefore, may differ from estimates that would have been obtained using 1990 census results brought forward to the survey date. Population controls incorporating 1990 census results

will be used for survey estimation beginning in 1993.

Survey data are generally presented as point estimates and estimates may differ considerably from those of the census. Estimates of sampling error can be computed from information presented in each of the specific reports cited. Comparisons of characteristics made from sample data in the text are tested for statistical significance at the 90-percent confidence interval. Statistical significance is a concept concerning the amount of confidence we have in an estimate derived from a sample. Confidence in

an estimate is expressed in terms of a confidence interval.

Some estimates for the characteristics of small subgroups (such as race and detailed age groups) are presented in ranges as 90-percent confidence intervals. This is because point estimates might be misleading when population and sample sizes are small. Confidence intervals provide a measure of the reliability of estimates. For example, the 90-percent confidence interval for the poverty rate for Black women 85 years and over in 1987 was 42 to 68 percent. The data allow a high

degree of confidence that the true percentage of poor Black women 85 years and over lies within this range but the actual percentage is not known beyond this degree of accuracy. For some characteristics, the reported range is quite narrow, giving us a good idea of what the population group is like in the particular respect. For those characteristics for which the range is broader, the reporting method used here still allows an understanding of their general magnitude. In graphics that present the data as confidence intervals, the estimated range of the characteristics is shaded at the end of each bar.

Figure 1-1.
Population, by Sex and Age: 1990
(In millions)



Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*.

The sums of individual items may not always equal the totals shown in the same tables because of independent rounding of totals and components to the nearest thousand. Similarly, sums of percent distributions may not always equal 100 percent because of rounding. Differences are insignificant.

This report focuses on the elderly population, those persons 65 years and over. Where possible, we distinguish among the component age groups of "the elderly" to show the diversity of this large population group. For convenience and simplicity, the following terms are used for the component age groups: the young old (65 to 74 years); the aged (75 to 84 years); and the oldest old (85 years and over). The term, "frail elderly" refers to the group of persons 65 years or older with significant physical and cognitive health problems. This term is used to emphasize that not all elderly persons have serious health problems.

Chapter 2.

Numerical Growth

Changes in Age Composition

The Elderly Population Is 10 Times Larger Than in 1900 and Would More Than Double From 1990 to 2030

Changes in age composition can have dramatic political, economic, and social effects on a nation. Past changes in the number of births have been the most important influence on later changes in the number of persons at each age. Improvements in the chance of survival have been of secondary importance. Now, however, the improved chance of survival to the oldest ages is the most important factor in the growth of the very old.¹ The volume of net migration has traditionally had the smallest role in changing age distributions. In the next century, however, past immigration, especially of young Hispanics, will become an additional major factor in the eventual rapid growth of the elderly population.

The aging of America is not new. In colonial times, half the population was under age 16. Most never reached old age. High mortality and high fertility kept us a youthful nation. In this century, fertility has declined from an average of seven births per woman to two. Mortality has been a secondary factor but also has been declining. Infant and maternal mortality rates declined profoundly as did deaths from infectious and parasitic diseases, which killed at every age. In 1990, less than 1 in 4 (23 percent) people were under age 16 and about half the population was aged 33 or older.² By 2010, according to the

Census Bureau's middle series projections,³ half the population would be 37 or older if levels of fertility, mortality, and net migration follow recent trends. Likewise, by 2050, at least half would be 39 years old or older. If levels of fertility, mortality, and net migration are lower, half the population would be 50 or older by 2050, a possibility that is conceivable.

What is new is the rapid pace of aging. In this century, the total population tripled. The number of persons 65 years and over increased by a factor of ten, from 3.1 million in 1900 to 31.1 million in 1990 (table 2-1). Under the Census Bureau's middle series projections, the number of persons 65 years and over would more than double by the middle of the next

"other races." Appendix C has a detailed explanation of the modifications. Throughout this report, counts of persons by age, sex, race, and Hispanic origin are from the modified series unless stated otherwise. State data, for example, are from Summary Tape File 1-A (STF1-A) because the modified series for states had not been released at the time this report was written. For the elderly population, the differences in the two files are relatively minor. For example, the total population aged 65 and over is about 163,000 smaller in the CPH-L-74 series than in STF1-A, as a result of an error in age reporting. The White elderly population is about 169,000 larger in the CPH-L-74 series as a result of assignment of race for Hispanics who marked their race as "other race" on the 1990 census form.

³Throughout this report, projections for the year 2000 and beyond come from the following report: Jennifer Day, U.S. Bureau of the Census, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992. The Census Bureau produces a series of projections based on varying assumptions about the levels of fertility, mortality, and net migration. Unless stated otherwise, the projections used here are from the middle series. The middle series does not anticipate significant changes in any of the components of population from recent trends. Projections are not forecasts or predictions. Projections are always "correct" in the sense that they are the accurate results of mathematical calculations based on specified assumptions. Forecasts are the projections that analysts judge to be the most probable end results. There are alternative projections, but it would be contradictory to make alternative forecasts. It is, however, appropriate to develop numerical ranges for forecast values. Predictions have no formal meaning; they are related more to forecasts than to projections.

century to nearly 79 million. About 1 in 8 Americans were elderly in 1990, but about 1 in 5 could be elderly by the year 2030.

To better understand the progression of growth of the elderly population, we will examine age-sex pyramids from 1905 to 2050. The distribution of the population by age and sex in 1905 is what demographers call a classic age-sex pyramid, wider at the bottom from births and more narrow at the top as death takes its toll at the older ages (figure 2-1). Age groups are indicated by horizontal bars, starting at the bottom with the youngest age group. The numbers across the bottom indicate millions of persons. Each age group is classified by males on the left and females on the right.

The shape of the pyramid remained about the same until the 1921-to-1945 period when there was a dramatic drop in birth rates. After peaking at 3.1 million births in 1921, annual births declined to 2.5 million in the early 1930's and did not pass the 3 million mark again until 1943. The population pyramid for 1945 (figure 2-2) shows distortion at the bottom of the chart for ages under 19, a result of the low birth rates of the 1920's, the Depression, and the World War II years. It is because of the relatively low birth rates of these years that growth in the size of the elderly population will be steady but undramatic until after 2011 when the Baby Boom begins to reach age 65. Planners call this period a "window of opportunity," a time to plan and prepare for the aging of the Baby-Boom generation.

Since the Second World War, the United States has been on a demographic roller coaster in terms of the number of births. In the 1930's we had a Baby Bust, in the 1950's a Baby Boom, in the 1970's a Baby Bust, and in the 1980's a Baby Boomlet (also called the "Baby Echo" as they are the children of persons

¹Ira Rosenwaik and Arthur Dolinsky, "The Changing Demographic Determinants of the Growth of the Extreme Aged," *The Gerontologist*, Vol. 27, No. 3 (June 1987), pp. 275-280.

²U.S. Bureau of the Census, 1990 Census of Population, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*. Age and race data in the CPH-L-74 series are drawn from 1990 census counts modified to correct anomalies in age reporting and to assign a specific race to those who marked

Table 2-1.
Growth of the Older Population, Actual and Projected: 1900 to 2050
(In thousands. Data for 1900 to 1990 are April 1 census figures. Data for 2000 to 2050 are July 1 projections)

Year	Total number (all ages)	65 to 74 years		75 to 84 years		85 years and over		65 years and over	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
1900	75,995	2,187	2.9	772	1.0	122	0.2	3,080	4.1
1910	91,972	2,793	3.0	989	1.1	167	0.2	3,949	4.3
1920	105,711	3,464	3.3	1,259	1.2	210	0.2	4,933	4.7
1930	122,775	4,721	3.8	1,641	1.3	272	0.2	6,634	5.4
1940	131,669	6,376	4.8	2,278	1.7	365	0.3	9,019	6.8
1950	150,697	8,415	5.6	3,277	2.2	577	0.4	12,269	8.1
1960	179,323	10,997	6.1	4,634	2.6	929	0.5	16,560	9.2
1970	203,302	12,447	6.1	6,124	3.0	1,409	0.7	19,980	9.8
1980	226,546	15,581	6.9	7,729	3.4	2,240	1.0	25,550	11.3
1990	248,710	18,045	7.3	10,012	4.0	3,021	1.2	31,079	12.5
MIDDLE SERIES (Middle fertility, mortality, and immigration assumptions)¹									
2000	274,815	18,258	6.6	12,339	4.5	4,269	1.6	34,886	12.7
2010	298,109	21,235	7.1	12,767	4.3	5,702	1.9	39,705	13.3
2020	322,602	31,680	9.8	15,467	4.8	6,480	2.0	53,627	16.6
2030	344,951	37,865	11.0	23,592	6.8	8,381	2.4	69,839	20.2
2040	364,349	33,678	9.2	28,689	7.9	13,221	3.6	75,588	20.7
2050	382,674	35,217	9.2	26,008	6.8	17,652	4.6	78,876	20.6
HIGHEST SERIES (High fertility, low mortality, and high net immigration assumptions result in higher number of elderly)²									
2000	281,306	18,474	6.6	12,576	4.5	4,464	1.6	35,534	12.4
2010	317,895	21,884	6.9	13,433	4.2	6,473	2.0	41,790	13.1
2020	360,123	33,125	9.2	16,702	4.6	8,028	2.2	57,855	16.1
2030	405,130	40,605	10.0	26,043	6.4	11,083	2.7	77,731	19.2
2040	453,687	37,767	8.3	32,716	7.2	18,374	4.0	88,857	19.6
2050	506,740	40,822	8.0	31,144	6.1	26,160	5.2	97,926	19.3
LOWEST SERIES (Low fertility, high mortality, and low net immigration assumptions result in lowest number of elderly)³									
2000	268,108	17,891	6.7	12,022	4.5	4,055	1.5	33,968	12.7
2010	278,078	20,091	7.2	11,751	4.2	4,852	1.7	36,694	13.2
2020	285,200	28,982	10.2	13,380	4.7	4,820	1.7	47,182	16.5
2030	286,710	33,187	11.6	19,271	6.7	5,569	1.9	58,027	20.2
2040	282,286	27,669	9.8	21,958	7.8	7,933	2.8	57,560	20.4
2050	275,847	27,630	10.0	18,299	6.6	9,228	3.3	55,157	20.0

¹For the base years (1992): Lifetime births per 1,000 women, 2.052; Life expectancy at birth, 75.8; Yearly net immigration, 880,000. Assumptions for the year 2050 are respectively: 2.119; 82.1; and 880,000.

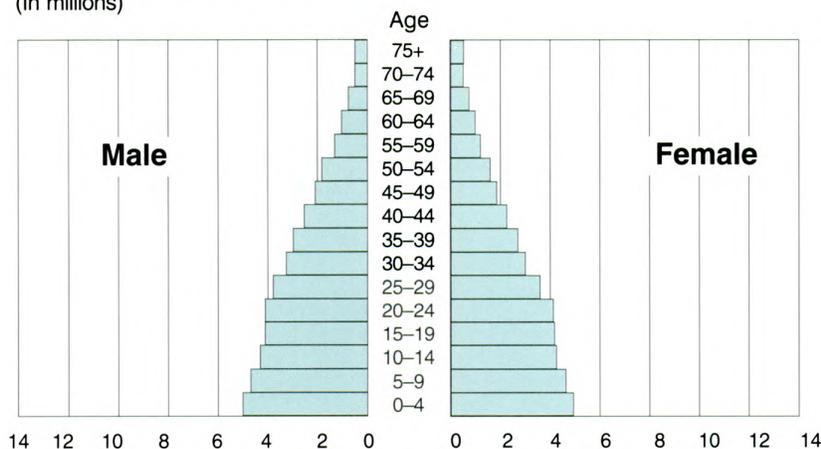
²For the base years (1992): Lifetime births per 1,000 women, 2.052; Life expectancy at birth, 75.8; Yearly net immigration, 880,000. Assumptions for the year 2050 are respectively: 2.522; 87.6; and 1,370,000.

³For the base years (1992): Lifetime births per 1,000 women, 2.052; Life expectancy at birth, 75.8; Yearly net immigration, 880,000. Assumptions for the year 2050 are respectively: 1.833; 75.3; and 350,000.

Figures for 1990 to 1995 exclude Alaska and Hawaii. Figures for 1900 to 1990 are for the Resident population; Projections for 2000 to 2050 include Armed Forces Overseas.

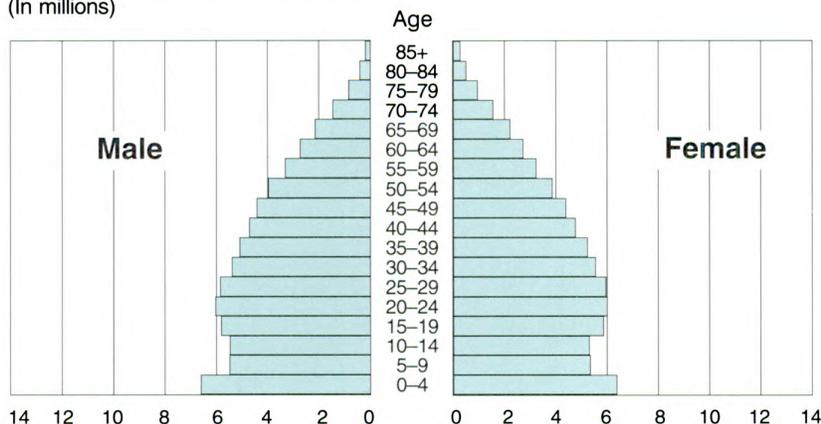
Source: U.S. Bureau of the Census. Data for 1900 to 1940, 1960, and 1980 shown in 1980 Census of Population, PC80-B1, *General Population Characteristics*, Tables 42 and 45; Data for 1990 from 1990 Census Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*. Data for 1950 shown in *Estimates of the United States and Components of Change, by Age, Color, and Sex: 1950 to 1960*, Current Population Reports, Series P-25, No. 310, U.S. Government Printing Office, Washington, DC, 1965. Data for 1970 from unpublished table consistent with *United States Population Estimates by Age, Race, Sex, and Hispanic Origin: 1988*, Series P-25, No. 1045, U.S. Government Printing Office, Washington, DC, 1990. Data for 2000 to 2050 shown in *Current Population Reports, P25-1092, Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, U.S. Government Printing Office, Washington, DC, 1992.

Figure 2-1.
Population, by Sex and Age: 1905
(In millions)



Source: U.S. Bureau of the Census, *Estimates of the Population of the United States, by Single Years of Age, Color, and Sex: 1900 to 1959*, Current Population Reports, Series P-25, No. 311. U.S. Government Printing Office, Washington, DC, 1965.

Figure 2-2.
Population, by Sex and Age: 1945
(In millions)



Source: U.S. Bureau of the Census, *Estimates of the Population of the United States, by Single Years of Age, Color, and Sex: 1900 to 1959*, Current Population Reports, Series P-25, No. 311. U.S. Government Printing Office, Washington, DC, 1965.

born during the Baby Boom). The elderly grew from 5 percent of the American population in 1930 to near 13 percent in 1990.

Seventy-five million babies were born in the United States from 1946 to

1964. The sheer magnitude of this human tidal wave comes into sharper focus when we realize that those born from 1946 to 1964 totaled 70 percent more people than were born during the preceding two decades. American society tried to adjust to the size

and needs of a young Baby-Boom generation from the late 1940's through the 1970's (figures 2-3 and 2-4). Later, the Baby Boom, followed by the Baby Bust, was one cause of ups and downs in the number of youth in college, entering the labor force, and starting families.

In 1990, the Baby Boom was nearly one-third of the American population and in their economically productive years (figure 1-1). They were also raising families, the Baby Echo. The elderly population was one-eighth of the total population and numbered 31.1 million.

The oldest old are a small but rapidly growing group. In 1900, 374,000 people were 80 years or older compared with 1990 when nearly 7 million were (table 2-2). The 1990 census counted about 3 million who were 85 years or older and nearly 1 million who reported their age as 90 or older.

Centenarians, persons 100 years or older, numbered 36,000 persons in 1990. That is more than double the number estimated in 1980. Centenarians constitute just over 1 in 10,000 persons in the total population and nearly 12 of every 10,000 elderly persons. About 4 of 5 centenarians are women. The chances of living to age 100 have improved. For those born in 1879, the odds against living 100 years were 400 to 1. Based on the mortality experience of 1979-1981, persons born in 1980 had odds of 87 to 1.⁴

Overall, the age group 85 and over is projected to be the fastest growing part of the elderly population into the

⁴Gregory Spencer, Arnold Goldstein, and Cynthia Taeuber, *America's Centenarians: Data From the 1980 Census*, U.S. Bureau of the Census, Current Population Reports, Series P-23, No. 153. U.S. Government Printing Office, Washington DC, 1987.

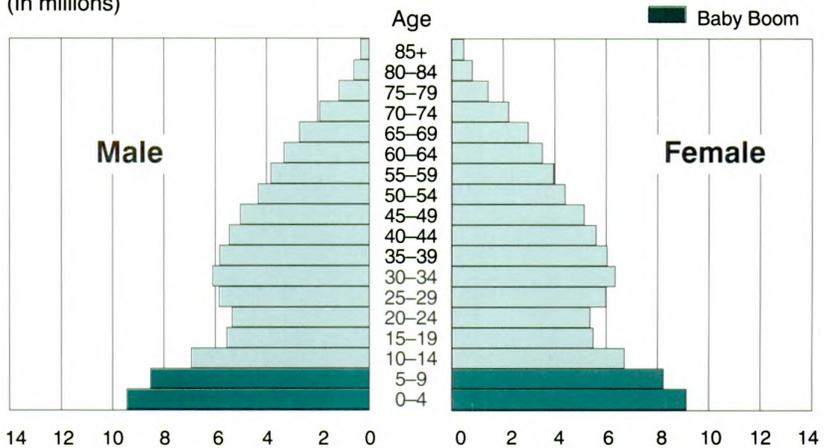
next century. Since 1960, this group increased 232 percent compared with an increase of 89 percent for the population 65 years and over and 39 percent for the total population. While such growth rates are extremely high, those 85 years and over are a relatively small group, just over 1 percent of the American population. Their size is already sufficient, however, to have a major impact on the nation's health and social service systems. Longer life expectancy has not necessarily translated into better health for the oldest old. The characteristics of the oldest old differ greatly from those of the younger old. In 1900, the 85-and-over group represented only 4 percent of the population 65 years and over. Ninety years later, they were 10 percent of the nation's elderly. Such numbers reflect the aging of the aged.

Another way to look at the changing age structure of the elderly is a ratio defined by demographer Jacob S. Siegel.⁵ He defines the ratio for two elderly generations as the number of persons aged 85 years and over per 100 persons aged 65 to 69 years (table 2-3). In 1950, the overall ratio was 12 and similar for Whites and Blacks. In four decades, the ratio increased to 30. By 2050, it would increase to 93 and would be highest for Whites.

The two-elderly-generation-ratio increased from 1950 to 1990 and would continue to increase steadily from 1990 to 2010. After that, it would decrease somewhat until 2030 because the Baby Boom 65-to-69-year-old group will be large. The ratio would more than double for Whites and Blacks from 2030 to 2050 when the Baby-Boom generation reaches the oldest old ages. The experience and problems of the young old caring for

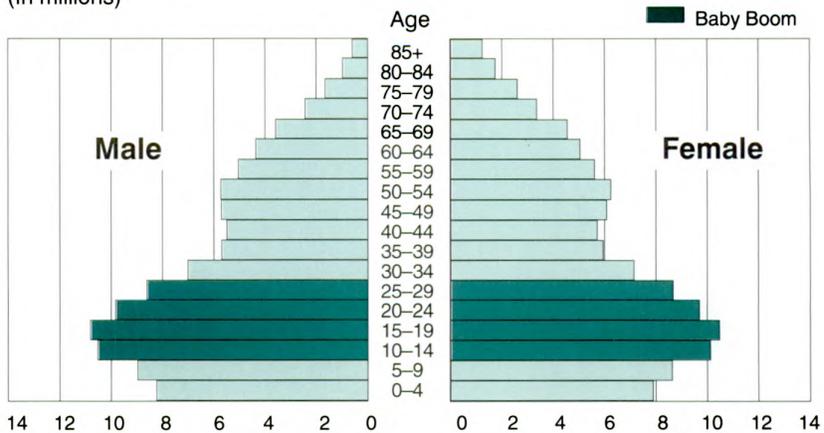
⁵Jacob S. Siegel and Cynthia M. Taeuber, "Demographic Perspectives on the Long-Lived Society," *Daedalus*, Vol. 115, No.1, 1986, pg. 84.

Figure 2-3.
Population, by Sex and Age: 1955
(In millions)



Source: U.S. Bureau of the Census, *Estimates of the Population of the United States, by Single Years of Age, Color, and Sex: 1900 to 1959*, Current Population Reports, Series P-25, No. 311. U.S. Government Printing Office, Washington, DC, 1965.

Figure 2-4.
Population, by Sex and Age: 1975
(In millions)



Source: U.S. Bureau of the Census, *Preliminary Estimates of the Population of the United States, by Age, Sex, and Race: 1970 to 1981*, Current Population Reports, Series P-25, No. 917. U.S. Government Printing Office, Washington DC, 1982.

the oldest old will become more and more familiar throughout society. The physical condition of the young old may become a serious issue as they try to help frail elderly move from

beds to chairs to baths and toilets. Need for a greater diversity of home aids and increased demands for access to public buildings for the disabled are likely.

Table 2-3.

Two-Elderly-Generation Support Ratios: 1950 to 2050

(Ratio of persons aged 85 years and over to persons aged 65 to 69 years)

Race	1950	1990	2010	2030	2050
Total	12	30	47	42	93
White	12	31	49	44	97
Black	11	26	36	31	77
Other races	14	17	34	46	78
Hispanic origin ¹	(NA)	21	35	32	72

NA Not available.

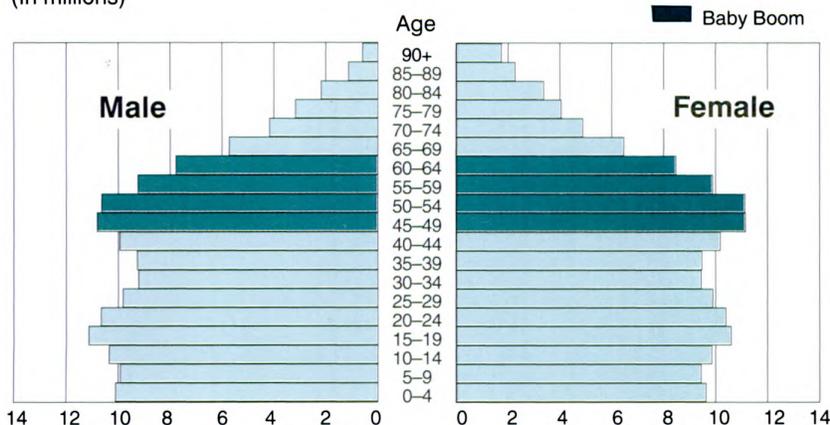
¹Hispanic origin may be of any race.

Source: U.S. Bureau of the Census, 1950 from 1950 Census of Population, Volume 2, Part 1, Chapter C, table 112; 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*; 2010 to 2050 from *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

Figure 2-5.

Population, by Sex and Age: 2010

(In millions)



Source: Jennifer C. Day, U.S. Bureau of the Census, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

By 2010, the Baby Boom will be aged 46 to 64 (figure 2-5). After that, growth of the elderly population will be more dramatic (figures 2-6 and 2-7) as the Baby Boom becomes the Grandparent Boom (to a certain extent, we are talking about a Grandma Boom assuming women continue to outnumber men significantly). From 2010 to 2030, they will be the young old and the aged (65 to 74 years old and 75 to 84 years old). Elderly

women are expected to outnumber men 3 to 2. During these two decades, the population aged 65 to 84 years would grow 81 percent under middle series projections while the population aged 85 and over would grow 47 percent. The population under age 65 would increase almost 7 percent.

After 2030, we will see the final phase of the gerontological explosion.

The growth of the young old would decelerate as the cohort born after the Baby Boom, from 1965 to 1984, will be ages 66 through 85 in 2050. That age group would remain at just over 61 million in both 2030 and 2050. It is the size of the oldest old population that we will notice most as the aging of the aged, the Great-Grandparent Boom begins (figure 2-8). The population aged 85 and over would more than double, from 3 million in 1990 to 8 million in 2030. This group would more than double in size again by 2050, to over 17 million, as the survivors of the Baby-Boom cohort reach the oldest ages. The oldest old would be 4.6 percent of the total population in 2050.

If mortality levels continue on the same course as we have experienced recently, by the middle of the next century, 9 million Americans would be 90 years or older compared with just under 1 million in 1990. If mortality rates decrease at a faster rate among the oldest old than is projected, the numbers will be much higher. If fertility rates decrease further, the elderly would become a larger proportion of the population than now. With such demographic facts staring us in the face, some (especially policy makers and businesses) are becoming more attentive to the implications of not just an older population, but of an aging society.

The middle series projections shown above indicate what would happen to the age distribution if fertility, mortality, and net migration trends followed recent trends into the middle of the next century.⁶ If the number of children born or the immigration of non-

⁶Jennifer C. Day, U.S. Bureau of the Census, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington DC, 1992, Table A, Principal assumptions for race/Hispanic groups.

Table 2-2.
Population 65 Years and Over, by Age, Sex, Race, and Hispanic Origin: 1990

Race and sex	Total, 65 years and over	65 to 69 years	70 to 74 years	Total, 75 years and over	75 to 79 years
All Races					
Total	31,078,895	10,065,835	7,979,660	13,033,400	6,102,929
Male	12,492,766	4,507,539	3,399,275	4,585,952	2,388,895
Female	18,586,129	5,558,296	4,580,385	8,447,448	3,714,034
Males per 100 females	67.2	81.1	74.2	54.3	64.3
White					
Total	28,020,562	8,983,978	7,191,013	11,845,571	5,518,341
Male	11,284,407	4,047,535	3,079,801	4,157,071	2,165,061
Female	16,736,155	4,936,443	4,111,212	7,688,500	3,353,280
Males per 100 females	67.4	82.0	74.9	54.1	64.6
Black					
Total	2,492,221	859,694	638,077	994,450	483,535
Male	956,936	360,653	252,967	343,316	178,695
Female	1,535,285	499,041	385,110	651,134	304,840
Males per 100 females	62.3	72.3	65.7	52.7	58.6
American Indian, Eskimo, and Aleut					
Total	116,153	43,374	29,831	42,948	21,522
Male	48,874	19,658	12,759	16,457	8,552
Female	67,279	23,716	17,072	26,491	12,970
Males per 100 females	72.6	82.9	74.7	62.1	65.9
Asian and Pacific Islander					
Total	449,959	178,789	120,739	150,431	79,531
Male	202,549	79,693	53,748	69,108	36,587
Female	247,410	99,096	66,991	81,323	42,944
Males per 100 females	81.9	80.4	80.2	85.0	85.2
Hispanic Origin¹					
Total	1,146,223	431,000	284,085	431,138	211,432
Male	474,830	192,949	118,696	163,185	82,364
Female	671,393	238,051	165,389	267,953	129,068
Males per 100 females	70.7	81.1	71.8	60.9	63.8

See footnotes at end of table.

Table 2-2.
Population 65 Years and Over, by Age, Sex, Race, and Hispanic Origin: 1990—Continued

Race and sex	Total, 80 years and over	80 to 84 years	Total, 85 years and over	85 to 89 years	90 to 94 years	95 to 99 years	Total, 100 years and over
All Races							
Total	6,930,471	3,909,046	3,021,425	2,034,661	747,979	202,977	35,808
Male	2,197,057	1,355,830	841,227	605,936	184,048	43,544	7,699
Female	4,733,414	2,553,216	2,180,198	1,428,725	563,931	159,433	28,109
Males per 100 females	46.4	53.1	38.6	42.4	32.6	27.3	27.4
White							
Total	6,327,230	3,566,268	2,760,962	1,858,176	689,928	183,505	29,353
Male	1,992,010	1,232,184	759,826	547,832	167,568	38,559	5,867
Female	4,335,220	2,334,084	2,001,136	1,310,344	522,360	144,946	23,486
Males per 100 females	45.9	52.8	38.0	41.8	32.1	26.6	25.0
Black							
Total	510,915	288,283	222,632	150,294	49,599	17,049	5,690
Male	164,621	98,351	66,270	46,949	13,485	4,277	1,559
Female	346,294	189,932	156,362	103,345	36,114	12,772	4,131
Males per 100 females	47.5	51.8	42.4	45.4	37.3	33.5	37.7
American Indian, Eskimo, and Aleut							
Total	21,426	12,236	9,190	6,287	1,982	659	262
Male	7,905	4,641	3,264	2,265	680	222	97
Female	13,521	7,595	5,926	4,022	1,302	437	165
Males per 100 females	58.5	61.1	55.1	56.3	52.2	50.8	58.8
Asian and Pacific Islander							
Total	70,900	42,259	28,641	19,904	6,470	1,764	503
Male	32,521	20,654	11,867	8,890	2,315	486	176
Female	38,379	21,605	16,774	11,014	4,155	1,278	327
Males per 100 females	84.7	95.6	70.7	80.7	55.7	38.0	53.8
Hispanic Origin¹							
Total	219,706	128,302	91,404	64,945	19,257	5,616	1,586
Male	80,821	48,430	32,391	23,695	6,405	1,726	565
Female	138,885	79,872	59,013	41,250	12,852	3,890	1,021
Males per 100 females	58.2	60.6	54.9	57.4	49.8	44.4	55.3

¹Hispanic origin may be of any race.

Source: U.S. Bureau of the Census. 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*.

elderly adults increased significantly, the size of the working-age population would eventually increase relative to the elderly population. Over the long run, the younger cohorts will themselves age. Increased fertility or immigration could delay but not change an eventual large elderly population relative to the working-age population. The experience of demographic history may be a useful guide for policy-makers.

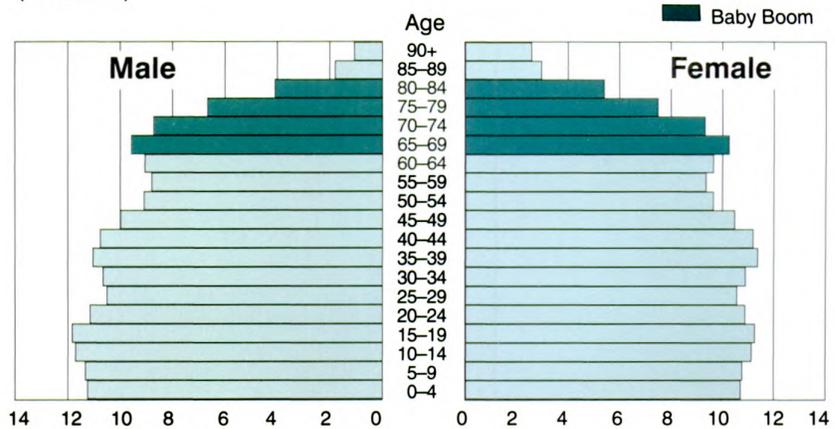
Older Women and Older Men

Elderly Women Outnumber Elderly Men 3 to 2

At every age, male mortality exceeds female mortality. As a result, elderly women outnumber men 3 to 2, a change from 1930 when they were nearly equal in number (due in part to the fact that immigrants were most likely to be men). In 1990, there were nearly 19 million elderly women. That's about 6 million more elderly women than elderly men. The differences between the number of men and women grows with advancing age. At ages 65 to 69, women outnumber men 5 to 4; for those 85 years and over, women outnumber men 5 to 2 (table 2-2).

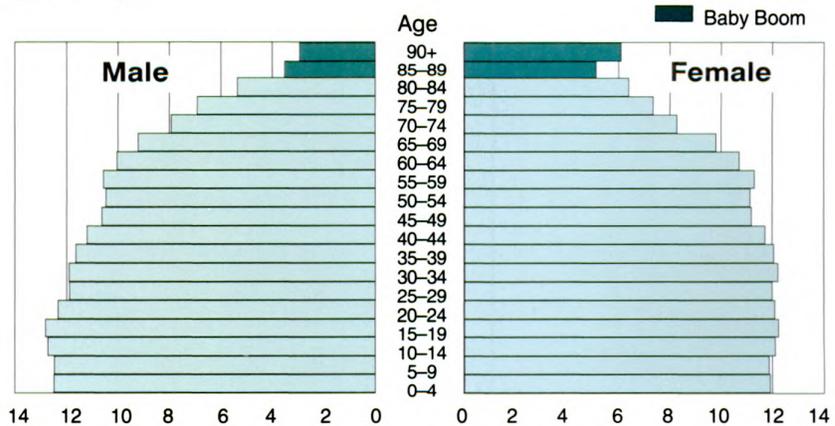
Perhaps no feature of the oldest old population is as striking as their relative numbers of males and females (841,000 males and 2.2 million females in 1990). In 1990, 68 percent of the American population 80 years and over were women. In 1990, the sex ratio (males per 100 females) in the United States was 42 for persons aged 85 to 89 years, and 27 for persons aged 95 to 99. It was also 27 for persons 100 years and over. By comparison, the sex ratio was 81 for persons aged 65 to 69 years (figure 2-9).

Figure 2-6. Population, by Sex and Age: 2030 (In millions)



Source: Jennifer C. Day, U.S. Bureau of the Census, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

Figure 2-7. Population, by Sex and Age: 2050 (In millions)

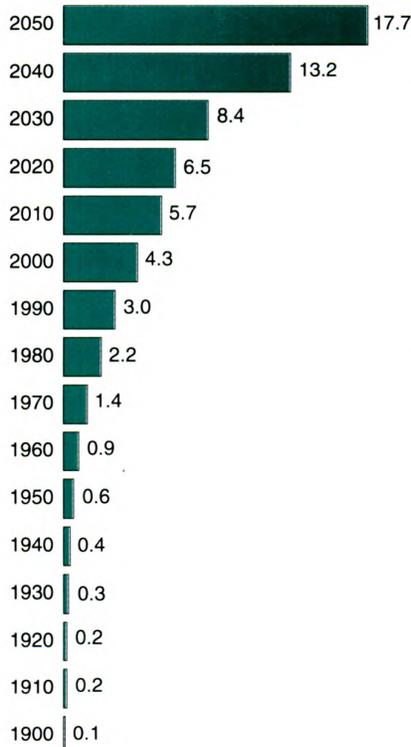


Source: Jennifer C. Day, U.S. Bureau of the Census, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

The female advantage in life expectancy has been expanding for decades (table 2-4). In 1930, the sexratio for persons 85 years and over was 75; by 1990, it was 39. This trend may abate in the next century if relative mortality trends do not change

significantly from what they have been in recent years. Men aged 85 and over are expected to increase their numbers relative to women. By 2050, the sex ratio would be 58 under the middle series projections. Nevertheless, there would still be 4.7 million

Figure 2-8.
Population 85 Years and Over: 1900 to 2050
(In millions)



Source: U.S. Bureau of the Census, 1900 to 1980 Censuses of Population; 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*; 2000 to 2050 from Jennifer C. Day, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

more women than men in this age group.

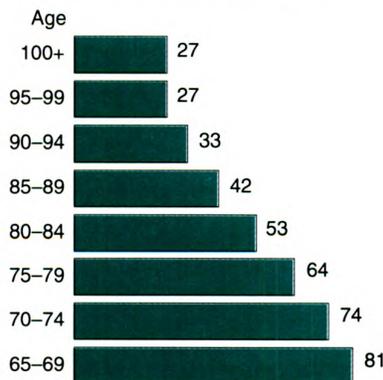
The death of a husband often marks the point of economic reversals for the surviving wife. The difference in age at marriage and the gap in life expectancy between men and women are related to the high proportion of

women living alone, the earlier institutionalization of women than men, sharply reduced income and a disproportionately high level of poverty among women, and a need for special support from family members or society.

In the future, we expect a delay in some of these problems as more men live to older ages. By the middle of the next century, we expect to see about six elderly men to seven elderly women among Whites and a 3 to 4 ratio among elderly Blacks.

Even among the oldest old, we may see a narrowing in mortality differences between men and women. Under middle series projections, we would see a ratio of nearly three men 85 years and over to five women that age by 2050. Women would still be more likely than men to survive to the oldest ages. Thus, the health, social, and economic problems of the oldest old are primarily the problems of women.

Figure 2-9.
Number of Men Per 100 Women, by Age: 1990



Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*.

Table 2-4.
Balance of Males and Females 85 Years and Over: 1930 to 2050

(Sex ratio is males per 100 females 85 years old and over)

Year	Sex ratio	Excess of females (thousands)
1930	75.4	38
1940	75.0	52
1950	69.7	103
1960	63.9	205
1970	53.3	430
1980	43.7	877
1990	38.6	1,339
2030	52.0	2,647
2050	57.8	4,727

Source: U.S. Bureau of the Census, 1930 and 1940 from 1940 Census of Population, Volume IV, Part 1, *Characteristics by Age*, table 2; 1950 from *Estimates of the Population of the United States and Components of Change, by Age, Color, and Sex: 1950 to 1960*, Current Population Reports, Series P-25, No. 310, U.S. Government Printing Office, Washington, DC, 1965; 1960 and 1980 from 1980 Census of Population, PC80-B1, *General Population Characteristics*, table 45; 1970 from unpublished tables consistent with *United States Population Estimates by Age, Race, Sex, and Hispanic Origin: 1988*, Series P-25, No. 1045, U.S. Government Printing Office, Washington, DC, 1990; 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic-Origin Data*; 2030 and 2050 from *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

Race and Hispanic Origin of the Elderly

There Will Be More Racial and Ethnic Diversity Among the Elderly

The elderly population is predominantly White but we can expect to see more racial diversity and more persons of Hispanic origin within America's elderly population in the coming years. Of the total elderly population in 1990, about 28.0 million were White; 2.5 million, Black; 116,000, American Indian, Eskimo, and Aleut (AIEA); 450,000, Asian and Pacific Islander (API); and 1.1 million were of Hispanic origin, who may be of any race (figure 2-10 and table 2-2). The elderly Asian, American Indian, and

Hispanic origin populations had relatively large gains between 1980 and 1990.⁷

In the coming decades, the elderly population will be much more racially and ethnically diverse than in 1990. Of the 78.9 million elderly projected

in the middle series for 2050 (figure 2-11), 9.4 million would be Black, 7.1 million would be races other than White or Black, and 12 million would be Hispanic depending on the level of immigration. If the chance of survival improves for each group, the numbers shown would be even higher.

While persons of races other than White constituted about 1 in 10 elderly persons in 1990, that will change

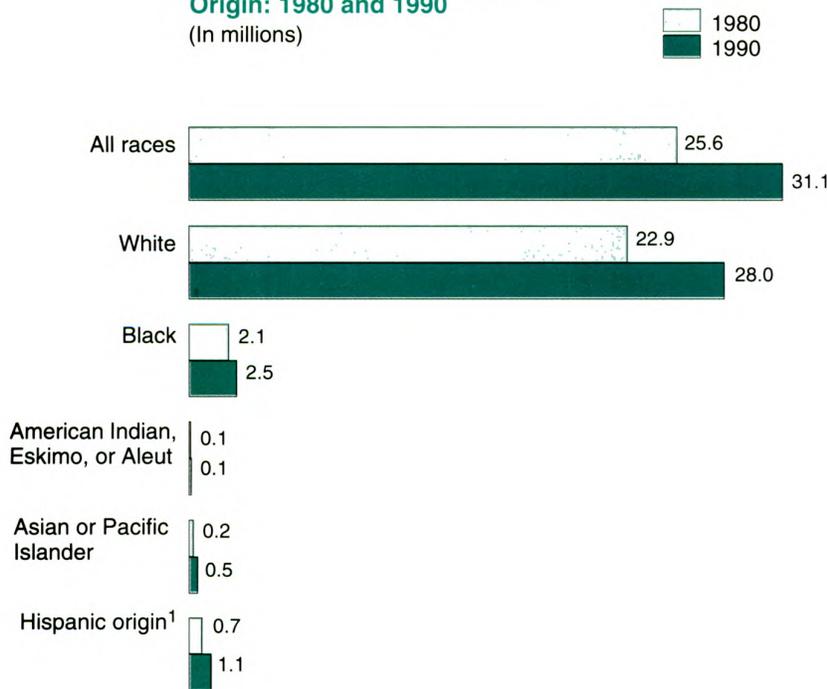
significantly by 2050 when the proportion may increase to 2 of 10 (figure 2-12).⁸ Over this period, the number of elderly Blacks would nearly quadruple (figure 2-13) and their proportion of the total elderly population would increase from 8 to 12 percent (figure 2-14). The Black population 85 years and over⁹ would increase from only 223,000 in 1990 to 2 million by 2050 (figure 2-15). Asians, Pacific Islanders, American Indians, Eskimos, and Aleuts combined would increase from less than 2 percent of the total elderly population to 9 percent over the 1990 to 2050 period.

Under the middle series projections, the elderly Hispanic population would more than double from 1990 to 2010 and would be 11 times greater by 2050 (figure 2-16). Hispanic elderly would increase from less than 4 percent of the total elderly population in 1990 to 15 percent by the middle of the next century (figure 2-17). By comparison, the Black non-Hispanic proportion of the elderly population by the middle of the next century would be 11 percent, the White non-Hispanic proportion would be 65 percent, and the Asian and Pacific Islander proportion would be 8 percent. The number of Hispanics who are 85 or older are small now (91,000 in 1990) but the rate of growth is projected to be rapid (figure 2-18).

The White population has a higher proportion elderly than other race

Figure 2-10.
**Persons 65 Years and Over,
by Specific Race and Hispanic
Origin: 1980 and 1990**

(In millions)



¹Hispanic origin may be of any race.

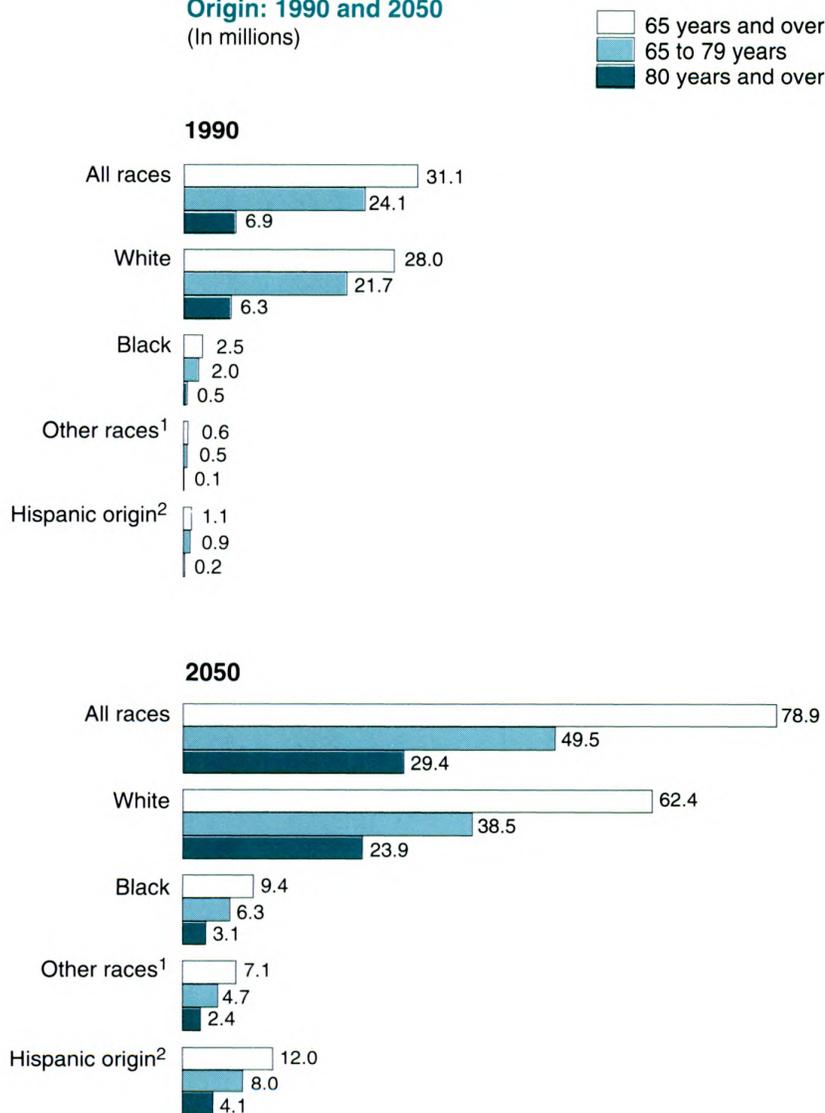
Note: The data for 1980 does not distribute persons of unspecified races among the specified races as has been done in the 1990 data. Thus, those elderly who marked "other race" on the 1980 Census questionnaire are not included here. In data for 1990 from the CPH-L-74 series used here, persons who marked "other race" were assigned the race reported by a nearby person with an identical response to the Hispanic origin question.

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, PC80-1-C1, U.S. Summary, U.S. Government Printing Office, Washington, DC, 1983, tables 120 and 130; 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*.

⁸Hispanic-origin persons may be of any race. In the text, Hispanic-origin persons are included in the "White" group if that is the way they identified themselves in the census. The proportion elderly who are "minorities" (that is, Hispanics and races other than White) could be higher than 2 in 10 if many Hispanics identify their race as "White."

⁹Blacks have accounted for a smaller share of the 85-and-over population in recent censuses than in earlier censuses. The decline, however, likely reflects improvement in age reporting because of improved knowledge of actual age through the wider availability of birth certificates and increased literacy. Thus, the result is likely a diminished tendency to exaggerate age among the oldest old.

Figure 2-11.
**Persons 65 Years and Over,
 by Age, Race, and Hispanic
 Origin: 1990 and 2050**
 (In millions)



¹Includes Asians and Pacific Islanders, American Indians, Eskimos, and Aleuts.

²Hispanic origin may be of any race.

Source: U.S. Bureau of the Census, 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*; 2050 from Jennifer C. Day, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

groups or Hispanics¹⁰ (figure 2-19). This fact is related to the better chance of survival to age 65 of Whites and lower recent fertility. Further, immigration may be a contributing factor. The White proportion of recent immigrants over the past 30 years has declined. Because immigrants typically are much younger than 65, other groups, especially Hispanics and Asians (which also have smaller base populations), are typically younger populations. In 1990, over 13 percent of the White population was elderly compared with 8 percent of the Black population, 6 percent of the AIEA and API groups combined, and 5 percent of the population of Hispanic origin. By 2050 (when the Baby-Boom generation is 85 years and over), about 15 percent of Black Americans and Hispanics could be 65 or older. A larger proportion of the White population, 23 percent, may be elderly.

About one-fifth of elderly Blacks and elderly Hispanics were 80 years or older in 1990. By 2050, the proportions for elderly Blacks and Hispanics could increase to almost one-third and be even higher for Whites (figure 2-20).

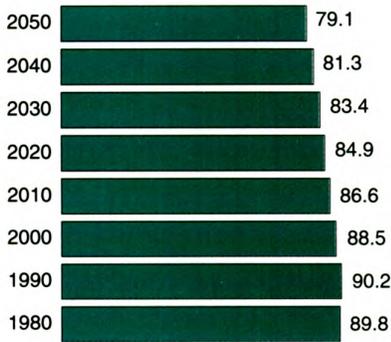
Familial Support Ratios

More People Will Face Caring for Frail Relatives

It is increasingly likely that more and more people in their fifties and sixties will have surviving parents, aunts, and uncles. The four-generation family will become common. Children will know their grandparents and even their great-grandparents, especially their great-grandmothers. And more people will face the concern and expense of caring for their very old, frail relatives since so many people now live long enough to experience multiple, chronic illnesses. A fair proportion of the Baby-Boom generation is

¹⁰Siegel and Taeuber, op.cit., pg. 87.

Figure 2-12.
Percent White of the Total Population 65 Years and Over: 1980 to 2050



Source: U.S. Bureau of the Census, 1980 from 1980 Census of Population; 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*; 2000 to 2050 from Jennifer C. Day, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050, Current Population Reports, P25-1092*. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

childless (26 percent in 1990; the last half of the Baby Boom are still in their childbearing years and so the percent childless should still decrease).¹¹ Those without children may face institutionalization at earlier ages than persons with surviving adult children.

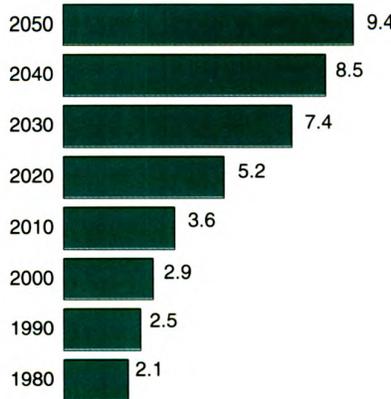
An approximate idea of things to come can be seen in two familial support ratios (table 2-5), the parent support ratio and the sandwich generation ratio. Such ratios reflect the way age composition affects the number of elderly persons relative to other specified age groups. The ratios are used as an estimate of elderly generations even though persons who are part of the age group in the nu-

¹¹U.S. Bureau of the Census, *Fertility of American Women: June 1990, Current Population Reports, Series P-20, No. 454*. U.S. Government Printing Office, Washington, DC, 1991, tables H and J.

merator are not necessarily in the same families as the age group for the denominator. Thus, the ratios are only a rough indication of need for family support over time.

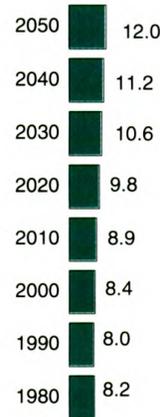
The parent support ratio is defined here as the number of persons aged 85 years and over per 100 persons aged 50 to 64 years. The parent support ratio tripled from 1950 to 1990 and would triple again over the next six decades. It is highest for Whites but changes in this ratio are meaningful to every race and ethnic group. The oldest old are the most likely to have pressing needs for economic and physical support. The need for help is likely to come at the

Figure 2-13.
Black Population 65 Years and Over: 1980 to 2050
(In millions)



Source: U.S. Bureau of the Census, 1980 from 1980 Census of Population; 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*; 2000 to 2050 from Jennifer C. Day, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050, Current Population Reports, P25-1092*. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

Figure 2-14.
Percent Black of the Total Population 65 Years and Over: 1980 to 2050



Source: U.S. Bureau of the Census, 1980 from 1980 Census of Population; 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*; 2000 to 2050 from Jennifer C. Day, *Population Projections United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050, Current Population Reports, P25-1092*. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

very time when the adult children (here estimated as the age group 50 to 64 years) of the frail oldest old are thinking about or have reached the age of retirement. Some of the 50-to-64-year-old group bear health limitations of their own. In 1950, relatively few people had to worry about caring for the frail elderly.

There is no historical precedent for the experience of most middle-aged and young-old persons having living parents. Menken has estimated that 1 in 3 50-year-old women had living mothers in 1940, and that by 1980, that proportion had doubled to 2 in 3.¹²

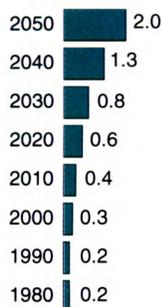
¹²Jane Menken, "Age and Fertility: How Late Can You Wait?" Presidential Address delivered at the annual meeting of the Population Association of America, Boston, March 28, 1985.

Families, especially adult daughters and daughters-in-law, provide 80 to 90 percent of personal care and help with household tasks, transportation, and shopping for the elderly. Brody conservatively estimates that over 5 million adult children provide parent care.¹³

Compared with 1950, more people give more difficult care for a longer time period. Additionally, life expectancy has increased for the disabled, the mentally retarded, and the chronically ill. Overall, today's caregivers provide care that is much more physically and psychologically demanding than that given in 1950 (especially with the increased number with cognitive diseases).

¹³Elaine M. Brody, "Parent Care as a Normative Family Stress," *Gerontologist*, February 1985, pp. 19-29.

Figure 2-15.
Black Population 85 Years and Over: 1980 to 2050
(In millions)

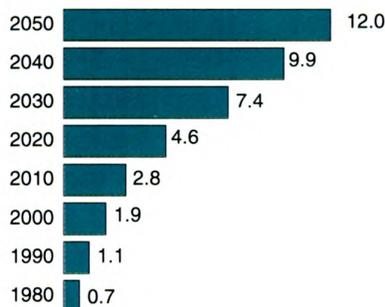


Source: U.S. Bureau of the Census, 1980 from 1980 Census of Population; 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*; 2000 to 2050 from Jennifer C. Day, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

As medical technology provides more ways to save lives, we can expect to see the duration of chronic illness, and consequently the need for help, to increase even more. The strain of caring for frail elderly could affect worker productivity. Women in particular, leave the work force or work part time to care for frail relatives at just the time when they want to work for retirement benefits in their own old age. Other women have responsibility for frail relatives while adjusting to their own retirement, widowhood, and reduced incomes.

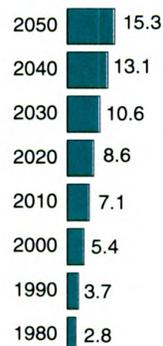
The popular press has dubbed the Baby Boom "the sandwich generation" with the idea that these middle-aged persons have joint responsibilities for the support of parents and children enrolled in college (table 2-5).

Figure 2-16.
Hispanic-Origin Population 65 Years and Over: 1980 to 2050
(In millions. Hispanic origin may be of any race)



Source: U.S. Bureau of the Census, 1980 from 1980 Census of Population; 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*; 2000 to 2050 from Jennifer C. Day, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

Figure 2-17.
Percent Hispanic Origin of the Total Population 65 Years and Over: 1980 to 2050



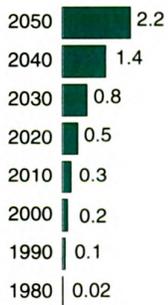
Source: U.S. Bureau of the Census, 1980 from 1980 Census of Population; 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*; 2000 to 2050 from Jennifer C. Day, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

Certainly there are families bearing the double burden of paying for college and supporting frail elderly persons at the same time. But the majority of families do not have children in college full time. In 1989, only 16 percent of families had at least one child aged 18 to 24; of these families, only 39 percent had at least one child attending college. Additionally, most middle-aged persons do not have elderly parents who are frail. In general, it isn't until after age 80 when severe mental and physical ailments become common and economic resources are more reduced. Most of the parents of persons aged 45 to 49 are likely to be under age 80. Nevertheless, the potential burden is greater now than in 1950 when the young were less likely to attend college and there were relatively fewer frail oldest old.

O'Connell et.al.,¹⁴ have shown that the overall odds of providing financial support to parents was 1 in 208 in 1985. There were 918,000 parents (of any age) who received financial support from their adult children. Most of the parents (761,000) lived in their own homes. The likelihood of making voluntary payments to parents is strongly related to the ability to pay. The mean family income of those providing parental financial support was \$42,000. The mean level of support was about \$1,500. O'Connell et.al., established that family income was the only consistently significant variable in their model that was positively related to the amount of support for

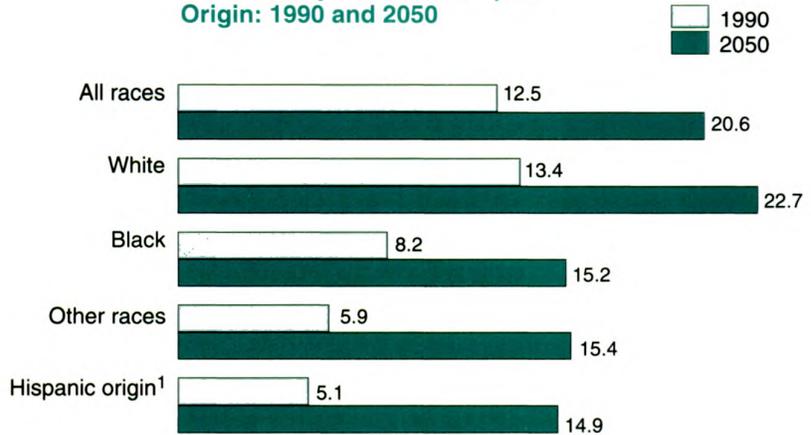
¹⁴Martin O'Connell, Jerry T. Jennings, Enrique J. Lamas, and John M. McNeil, U.S. Bureau of the Census, *Who's Helping Out? Support Networks Among American Families*, Current Population Reports, Series P-70, No. 13. U.S. Government Printing Office, Washington, DC, October 1988, pp. 2, 7-8, 10, 12-13 and tables D, H, I, J, and K.

Figure 2-18.
Hispanic-Origin Population 85 Years and Over: 1980 to 2050
(In millions. Hispanic origin may be of any race)



Source: U.S. Bureau of the Census, 1980 from 1980 Census of Population; 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*; 2000 to 2050 from Jennifer C. Day, *Population Projections of the United States by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

Figure 2-19.
Percentage of Population 65 Years and Over, by Race and Hispanic Origin: 1990 and 2050



¹Hispanic origin may be of any race.

Source: U.S. Bureau of the Census, 1980 from 1980 Census of Population; 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*; 2050 from Jennifer C. Day, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

parents. Social and demographic variables were not statistically significant. Those with a family income of \$45,000 or more were 3 times as likely to provide financial support to a parent as those with family income below \$15,000. For those aged 45 to 64 years, 1 in 77 provided financial support to parents. Of the 1.7 million persons aged 45 to 64 years who provided financial support to non-household members in 1985, only 7 percent (118,000) provided support to both children and adults (presumably some of whom were adults under age 65).

More elderly get financial help than give it¹⁵ but support is not a one-way street. Among the elderly who provided financial support to persons out-

¹⁵Ibid. O'Connell et.al. showed that the characteristics of the elderly make them unlikely as providers of financial help. The typical elderly person in 1985 was a woman who did not complete high school and 2 in 3 had family incomes below \$15,000. As many as 3.4 million were low-income widows. See pg. 12 of Current Population Reports, Series P-70, No. 13.

side their household, about 383,000 provided support to other adults, 24,000 to children only, and 5,000 to both adults and children. The elderly averaged support payments of \$4,500. About half of all dependent persons in nursing homes received support from other elderly persons (many were likely a noninstitutionalized spouse).¹⁶

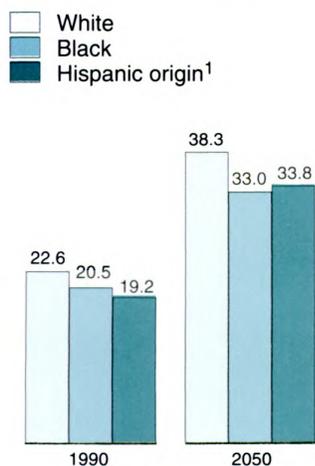
Some grandparents, in addition to the regular financial support described above, provide babysitting support. O'Connell and Bachu used the Fall 1987 Survey of Income and Program Participation (SIPP) to show that some 750,000 children under age 15 were cared for in their own homes by their grandparents (of any age).¹⁷ Another 1.2 million were cared for in

¹⁶Ibid., tables C, D, and 4.

¹⁷Martin O'Connell and Amara Bachu, U.S. Bureau of the Census, *Who's Minding the Kids? Child Care Arrangements: 1986-1987*, Current Population Reports, Series P-70, No. 20. U.S. Government Printing Office, Washington, DC, July 1990, tables B (pg. 3) and 2B (pg. 16).

the grandparent's home. Sixty-five percent of the 1.9 million children were under age 5. Where the employed mother was White, grandparents provided 12 percent of the primary care arrangements for children under age 5 compared with 21 percent where the employed mother was Black. Grandparents were especially likely to be the care providers for preschoolers when the income of the employed mother was below or near poverty level. Grandparents constituted 21 percent of care arrangements if the mother's income was below poverty as well as if the mother's income was 100 to 125 percent of the poverty level; if the mother's income was more than 125 per-

Figure 2-20.
Percentage of Population 65 Years and Over Who Are 80 or Older: 1990 and 2050



¹Hispanic origin may be of any race.

Source: U.S. Bureau of the Census, 1980 from 1980 Census of Population; 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*; 2050 from Jennifer C. Day, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

Table 2-5.
Parent and Sandwich Generation Support Ratios: 1950 to 2050

Ratio/race	1950	1990	2010	2030	2050
Parent Support Ratio¹					
Total	3	9	10	15	27
White	3	10	11	16	30
Black	3	7	7	11	21
Other races	2	4	7	12	20
Hispanic origin ²	(NA)	5	6	9	19
Sandwich Generation³					
Total	144	228	167	296	269
White	148	235	173	314	287
Black	497	195	136	255	231
Hispanic origin ²	(NA)	159	114	211	210

NA Not available.

¹Ratio of persons 85 years old and over to persons 50 to 64 years old.

²Hispanic origin may be of any race.

³Ratio of persons aged 18 to 22 enrolled in college plus persons aged 65 to 79 to persons aged 45 to 49 years. College enrollment for 1990-2050 is based on 1989 rates for 18 to 22 year olds (total, 37.3 percent; White, 38.7 percent; Blacks, 27.9 percent; Hispanics, 24.7 percent).

⁴1950 data are for "Blacks and other races" combined. Over 90 percent of "Black and other races" were Black in 1950.

Source: U.S. Bureau of the Census, 1950 from 1950 Census of Population, Volume 2, Part 1, Chapter C, table 112; 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*; 2010 to 2050 from *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

cent of the level, grandparents constituted 13 percent of the care arrangements.

Some grandparents also have their adult children and grandchildren living in their homes. Saluter¹⁸ found that in 1990, 3.2 million grandchildren, 5 percent of all children under 18 years, lived in homes maintained by their grandparents (of any age). Of these grandchildren, 15 percent had both parents living with them, 50 percent had only their mother present, 6 percent had only the father present, and 30 percent had no parents present. Black children were more likely to live in their grandparents' homes (12 percent) than were White children (4 percent). Black children were also more

¹⁸Arlene F. Saluter, U.S. Bureau of the Census, *Marital Status and Living Arrangements: March 1990*, Current Population Reports, Series P-20, No. 450. U.S. Government Printing Office, Washington, DC, May 1991, table 1, pp. 9-10.

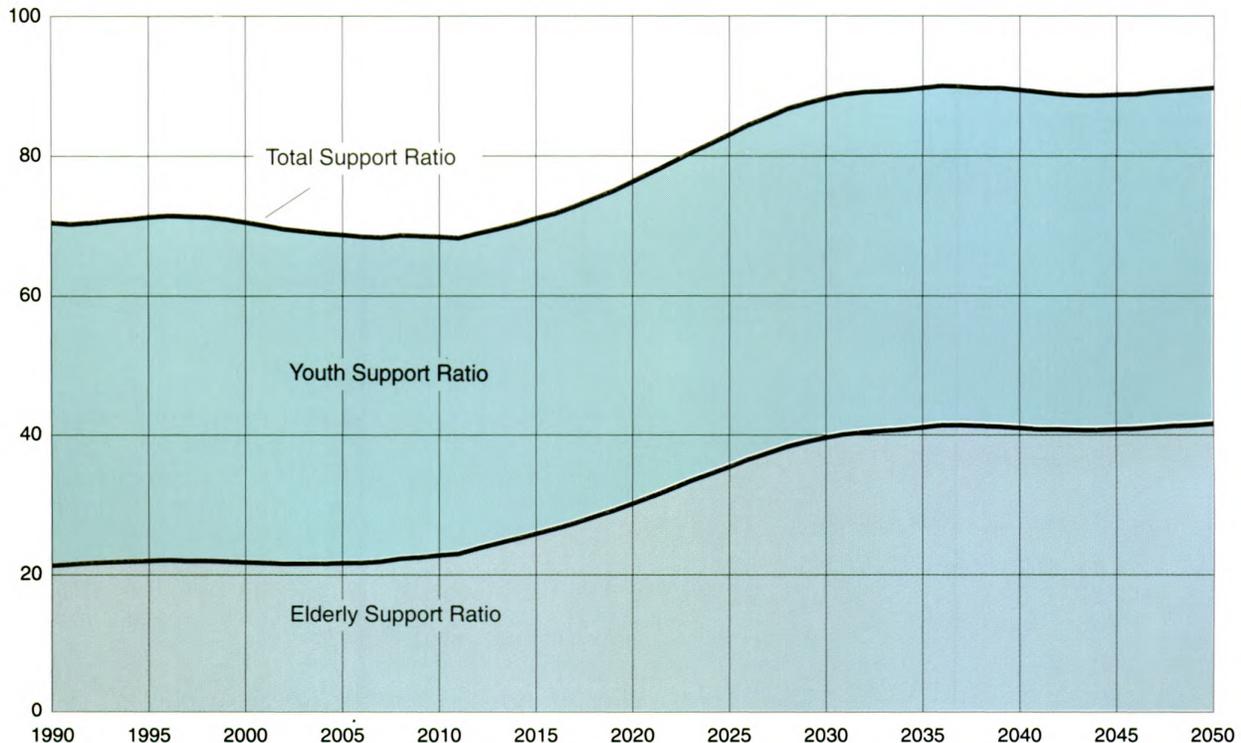
likely to be living with only their grandparents (38 percent versus 25 percent). Among Hispanic children, 6 percent lived in their grandparents' home. Of these, 21 percent lived with only their grandparents (not statistically different from that for Whites).

Societal Support Ratios

The Ratio of Elderly Persons to Those of Working Age Will Nearly Double From 1990 to 2050

With changes in the balance of the numbers and proportions in broad age groups, public policy issues often arise. We can show broad changes in our age structure by societal support ratios (S.R.). These are ratios of the number of youth (under age 20) and elderly (65 years and over) per one hundred persons aged 20 to 64 years, the principal ages for participation in the labor force.

Figure 2-21.
Trends in Total Support Ratios:
1990 to 2050



Note: Youth Support Ratio is the number of persons under age 20 divided by the number of persons aged 20 to 64 times 100. Elderly Support Ratio is the number of persons age 65 years and over divided by the number of persons aged 20 to 64 times 100. Total Support Ratio is the sum of the Youth Support Ratio and Elderly Support Ratio.

Source: Jennifer C. Day, U.S. Bureau of the Census, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092, U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

The total S.R. (youth plus elderly in relation to the working-age population) was 71 youth and elderly per 100 of working age in 1990 (figure 2-21). The total S.R. would decrease somewhat over the next two decades (the ratios for the younger population would decrease while for the older population they would increase little). The S.R. would then begin to climb after 2010 as the Baby Boom reaches their elder years and the population of the traditional working ages declines.

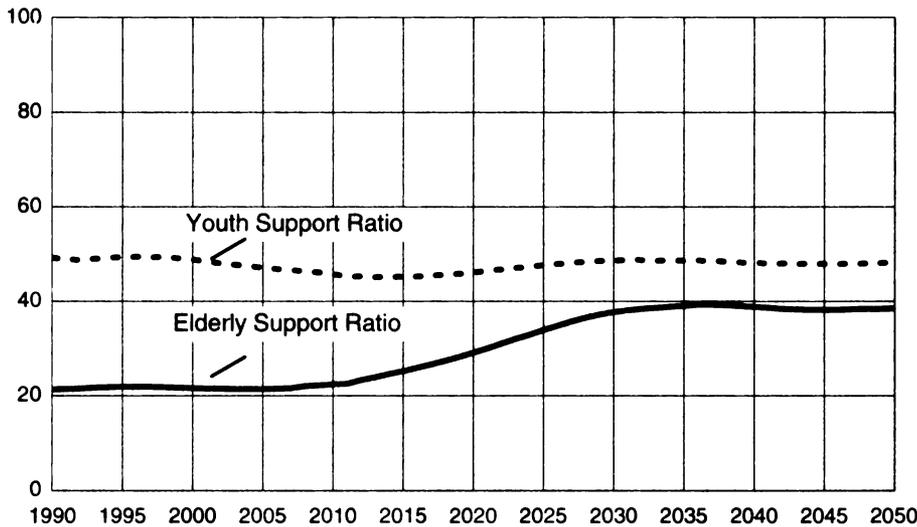
By 2050, the total S.R. would be 87 compared with 71 in 1990. The S.R. for the population under age 20 would decline slightly until 2020. Then the youth support ratio would start to increase somewhat until 2050 when it would near the 1990 level (figure 2-22).

From 1990 to 2050, the total S.R. would increase most for Whites, from 69 to 87. There will be a profound shift in the composition of the total

S.R. as the S.R. for the elderly population increases and the S.R. for the young population decreases for all groups (figure 2-23). For example, for the White population, there would be some decrease in the youth S.R. but the elderly S.R. would nearly double.

The most telling point about the elderly S.R. is that the population 75 years and over is an increasingly larger proportion (figure 2-24). Those aged 75 years and over are more likely than those aged 65 to 74 years to have

Figure 2-22.
Youth Support Ratios and Elderly Support Ratios: 1990 to 2050



Note: Youth Support Ratio is the number of persons under age 20 divided by the number of persons aged 20 to 64 times 100. Elderly Support Ratio is the number of persons age 65 years and over divided by the number of persons aged 20 to 64 times 100.

Source: Jennifer C. Day, U.S. Bureau of the Census, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092, U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

health and disability limitations and reduced economic resources. For each racial and ethnic group, those aged 65 to 74 years comprise the largest proportion of the elderly S.R. in 1990. By 2050, however, the population 75 years and over could be more than half the elderly S.R. for each group.

Of course, not all youth and elderly require support nor do all working-age persons actually work or provide direct support to youth or elderly family members (workers do provide indirect support through taxes and social welfare programs). The ratios are useful as indicators of potential change in the levels of economic and physical support needed. They are indicators of the periods when we can expect the particular age distribution of the country to affect the need for distinct

types of social services, housing, and consumer products. Some argue that the stability of the total S.R. over time is more pertinent to policy makers than the changes in the composition of the support ratio. Others argue that it is more important to know the balance of old versus young because the relative costs of supporting the young are probably less than for the elderly¹⁹ (especially as the elderly population itself ages). Further, the costs of young people are borne by families more than by government programs (with the major exception of education). Certainly, much depends on the health and economic resources of the aged of the future.

¹⁹Researchers have not determined the relative costs of young and old. See Donald J. Adamcheck and Eugene A. Friedman, "Societal Aging and Generational Dependency Relationships," *Research on Aging*, Vol. 5, No. 3 (September 1983), pp. 319-338.

Our Aging World

Numerical Growth of the Older Population Is Worldwide

To set the aging of the United States in context, it is useful to look at aging in the rest of the world. The rates of fertility and infant and maternal mortality have declined in many nations. They have also reduced the incidence of infectious and parasitic diseases. The world's nations also have improved other aspects of health and education. All of these factors have interacted so that every major region in the world shows an increased proportion of the population that will be 65 or older by 2020.

There were 332 million persons aged 65 and over in the world in 1991 (table 2-6).²⁰ They represent 6 percent of the world's population. By the year 2000, there would be over 426 million elderly. For the next two decades, growth of the elderly population will be moderate for most nations. After 2010, however, the numbers of elderly will increase rapidly because other nations also had a baby boom at the end of World War II. The annual growth rate for the elderly was 2.9 percent in 1991 (compared with an average annual rate of 2.4 percent from 1950 to 1980). Such growth is without historical precedent and we expect it to continue far into the 21st century.

Numerical growth of the older population is worldwide. It is occurring in both developed and developing countries. The average annual growth rate of persons 55 years and over is 3.2 percent in developing countries compared with 1.5 percent in the

²⁰The data for this section is from the Census Bureau's International Data Base on Aging. This file can be obtained from the National Archive of Computerized Data on Aging, a project of the Inter-university Consortium for Political and Social Research, University of Michigan, PO Box 1248, Ann Arbor, MI 48106 (telephone: 313-763-5010).

developed world (over the period 1991 to 2020). Over half (55 percent) of the world's elderly (65 years and over) lived in developing nations in 1991. These developing regions could be home to more than four-fifths (83 percent) of the world's elderly by the year 2020. Twenty-seven nations had elderly populations of at least 2 million in 1991 (table 2-7). Demographic projections indicate that there will be 49 such nations by 2020 (table 2-8).

Every month the net balance of the world's older population (55 years and over) increases by 1.4 million persons. Of this increase, 74 percent occurs in developing countries. In most developing countries, the population aged 75 years and over is growing faster than the older population in general, especially in Asia.

The level of fertility is a primary determinant of the age structure of a population. Population projections for China show that if the governmental

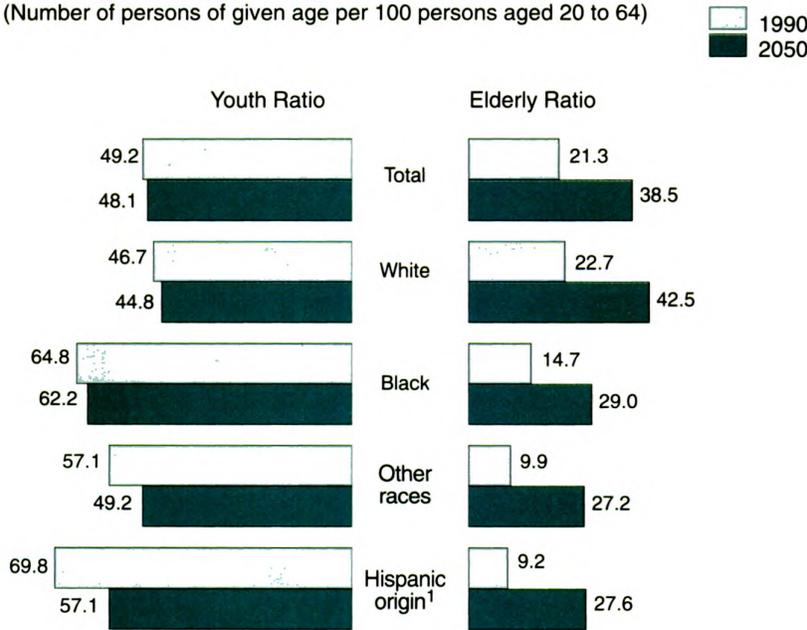
desire to lower fertility to one child per married couple occurred nationwide, 40 percent of the population would be 65 years or older by the middle of the next century compared with 6 percent in 1991. Sweden has the highest proportion of people aged 65 and over, with 18 percent in 1991, the same as the state of Florida. Sweden also has the highest proportion aged 80 and over with 4.5 percent. The Caribbean is the oldest of the major developing regions with 12 percent of its population 55 or older in 1991.

By 2020, the elderly will constitute from one-fifth to nearly one-fourth of the population of many European countries. For example, we project that 24 percent of Switzerland's population would be elderly compared with 23 percent for Italy, Finland, Sweden, Luxembourg, Germany, Denmark, and Greece. The United States would be 17 percent.

Japan's population age 65 and over is expected to grow dramatically in the coming decades. According to projections, the percentage of Japan's population that is elderly could grow from 12.3 percent (15.3 million) in 1991 to 17 percent (21.4 million) in 2000 and to 26 percent (33.4 million) by 2020 (table 2-9). This is a rapid rise in a short time. Japan's oldest old population is also projected to grow very rapidly, from less than 3 percent of their total population in 1991 to 8 percent by 2020. Japan's post-World War II Baby Boom will assure continued expansion of the elderly into the middle of the 21st century. Already the Japanese are reducing retirement benefits and making other adjustments to prepare for the economic and social results of a rapidly aging society.

In 1991, the world had an estimated 57 million octogenarians, people aged 80 or older. That number is expected

Figure 2-23.
Ratios of Youth and Elderly to Other Adults, by Race, and Hispanic Origin: 1990 and 2050
 (Number of persons of given age per 100 persons aged 20 to 64)



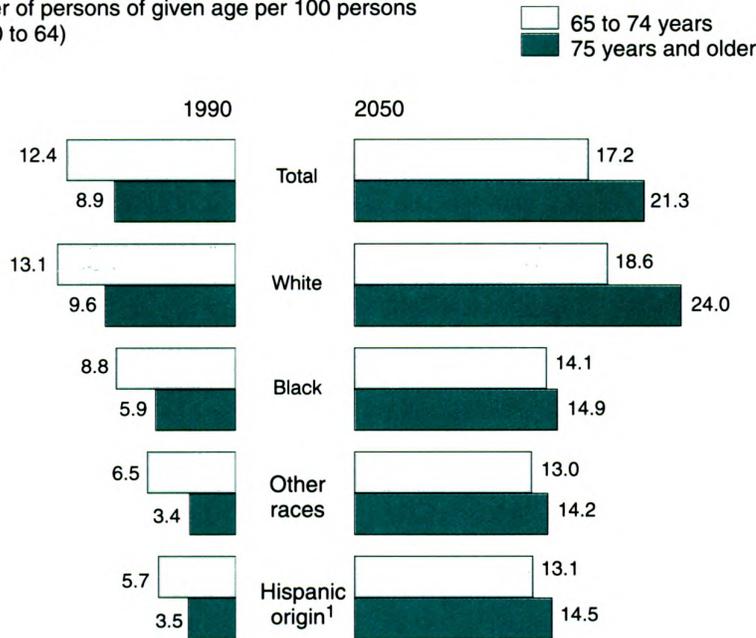
¹Hispanic origin may be of any race.

Note: Youth Ratio is the number of persons under age 20 divided by the number of persons aged 20 to 64 times 100. Elderly Ratio is the number of persons age 65 years and over divided by the number of persons aged 20 to 64 times 100.

Source: U.S. Bureau of the Census, 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*; 2050 from Jennifer C. Day, *Population Projections of the United States, by Age, Sex, Race, and Hispanic origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

Figure 2-24.
Support Ratios of Elderly Persons, by Age, Race, and Hispanic Origin: 1990 and 2050

(Number of persons of given age per 100 persons aged 20 to 64)



¹Hispanic origin may be of any race.

Source: U.S. Bureau of the Census, 1990 from 1990 Census of Population and Housing, Series CPH-L-74, *Modified and Actual Age, Sex, Race, and Hispanic Origin Data*; 2050 from Jennifer C. Day, *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050*, Current Population Reports, P25-1092. U.S. Government Printing Office, Washington, DC, 1992 (middle series projections).

to increase to 139 million by the year 2020. Persons 80 years and over constituted more than 15 percent of the world's elderly in 1991 (22 percent in developed countries, 13 percent in developing nations). While the majority of octogenarians live in developed countries now, it is projected that by 2020, the majority will live in developing countries. For many nations, the 80-and-over age group will be the fastest growing portion of the elderly population at least through the middle of the next century. By 2000, 22 percent of elderly Americans will be 80 or older which will likely be the highest proportion in the world.

In 1991, China had the largest number of persons aged 80 or older followed by the United States (table 2-10). Seven additional countries had over 1 million octogenarians (80 years and over) in 1991. By 2020, this list is expected to include eleven additional countries, eight of which are developing countries (table 2-11). In some developing countries, the number of octogenarians in 2020 could increase by a factor of ten from 1991. This highlights the problems such government may have in planning support services for this burgeoning population group.

Table 2-6.
World's Population, by Age and Sex: 1991 and 2000

Year and age	Population (millions)			Percentage			Males per 100 females
	Both sexes	Male	Female	Both sexes	Male	Female	
1991							
All ages	5,422	2,730	2,692	100.0	100.0	100.0	101.4
Under 15 years	1,750	894	856	32.3	32.7	31.8	104.4
15 to 64 years	3,340	1,693	1,646	61.6	62.0	61.2	102.9
65 years and over	332	142	190	6.1	5.2	7.0	75.0
2000							
All ages	6,283	3,163	3,120	100.0	100.0	100.0	101.4
Under 15 years	1,953	996	957	31.1	31.5	30.7	104.1
15 to 64 years	3,904	1,980	1,924	62.1	62.6	61.7	102.9
65 years and over	426	187	240	6.8	5.9	7.7	77.9

Source: U.S. Bureau of the Census, Kevin Kinsella, Center for International Research, International Data Base.

Table 2-7.
**Countries With More Than
 2 Million Elderly Persons in 1991**
 (In thousands)

Country	Population aged 65 and over
China, Mainland	67,967
India	32,780
United States	32,045
Japan	15,253
Germany	12,010
United Kingdom	9,025
Italy	8,665
France	8,074
Brazil	6,680
Indonesia	5,962
Spain	5,378
Pakistan	4,734
Poland	3,851
Mexico	3,522
Bangladesh	3,492
Vietnam	3,196
Canada	3,140
Argentina	3,012
Turkey	2,789
Nigeria	2,676
Romania	2,489
Philippines	2,380
Thailand	2,350
Yugoslavia	2,328
South Korea	2,135
Egypt	2,077
Iran	2,052

Source: U.S. Bureau of the Census, Kevin Kinsella, Center for International Research, International Data Base.

The stunning growth of the oldest old has various health and economic implications for individuals, families, and governments throughout the world. The oldest old often have severe chronic health problems. This demands special attention because the nature and duration of their illnesses are likely to produce a need for prolonged care for many people. Developing nations already have diluted resources. They are the most limited in being able to provide preventive measures and, in future years, support services. The United States and other countries face enormous investments and payments to maintain current levels of services for the oldest old.

Table 2-8.
**Countries With More Than
 2 Million Elderly Persons in 2020**
 (In thousands)

Country	Population aged 65 and over
China, Mainland	179,561
India	88,495
United States	53,627
Japan	33,421
Indonesia	22,183
Brazil	18,800
Germany	18,396
Italy	13,078
France	12,119
United Kingdom	12,108
Mexico	10,857
Pakistan	9,678
Nigeria	9,152
Bangladesh	9,057
Spain	8,162
Turkey	7,990
Thailand	7,828
Poland	7,243
Vietnam	6,707
Philippines	6,646
South Korea	6,550
Canada	6,404
Egypt	5,680
Iran	5,235
Yugoslavia	4,933
Argentina	4,862
Romania	4,588
Colombia	4,464
South Africa	4,084
Australia	3,956
Ethiopia	3,920
China, Taiwan	3,500
Netherlands	3,461
Burma	3,425
Czechoslovakia	3,149
Morocco	2,972
Venezuela	2,912
Saudi Arabia	2,867
North Korea	2,734
Zaire	2,643
Peru	2,580
Sri Lanka	2,527
Algeria	2,450
Greece	2,237
Hungary	2,186
Malaysia	2,139
Chile	2,133
Belgium	2,071
Portugal	2,053

Source: U.S. Bureau of the Census, Kevin Kinsella, Center for International Research, International Data Base.

Table 2-9.
Population, by Age and Sex for Japan:
1991, 2000, and 2020
(In thousands)

Age	1991	2000	2020
0 to 24 years	41,444	36,370	31,818
25 to 54 years	52,698	53,950	47,538
55 to 59 years	7,802	8,808	7,672
60 to 64 years	6,820	7,628	7,266
65 to 69 years	5,243	7,007	8,165
70 to 74 years	3,871	5,758	8,495
75 to 79 years	3,050	3,933	6,501
80 years and over	3,089	4,692	10,261

Source: U.S. Bureau of the Census, Kevin Kinsella, Center for International Research, International Data Base.

Table 2-10.
Countries With More Than One
Million Octogenarians in 1991
(Projection)
(In thousands)

Country	Population aged 80 and over
China, Mainland	9,173
United States	7,310
India	3,578
Japan	3,089
Germany	3,081
France	2,170
United Kingdom	2,130
Italy	1,853
Spain	1,164

Source: U.S. Bureau of the Census, Kevin Kinsella, Center for International Research, International Data Base and United Nations Department of Economic and Social Affairs.

Table 2-11.
Countries With More Than One
Million Octogenarians in 2020
(Projection)
(In thousands)

Country	Population aged 80 and over
China, Mainland	34,535
India	12,719
United States	12,393
Japan	10,261
Germany	5,893
Italy	4,119
Indonesia	3,683
United Kingdom	3,497
Brazil	3,319
France	3,136
Mexico	2,449
Turkey	1,888
Canada	1,627
Thailand	1,496
Poland	1,494
Pakistan	1,394
Yugoslavia	1,384
Romania	1,307
South Korea	1,285
Vietnam	1,112

Source: U.S. Bureau of the Census, Kevin Kinsella, Center for International Research, International Data Base and United Nations Department of Economic and Social Affairs.

Chapter 3.

Longevity and Health Characteristics

Longevity and Causes of Death

Trends in Life Expectancy and Survival

Most People Will Live to See Their 65th Birthday

As a result of reductions in mortality, there have been impressive increases in life expectancy that have contributed to the growth of the older population, especially at the oldest ages. This is in contrast to the early days of our Nation when high fertility and high mortality kept the nation "young." Demographers estimate that life ex-

pectancy²² at birth was about 35 years when this Nation was founded and had increased to perhaps 42 years by the mid-1800's.²³ By 1900, life expectancy had increased to 47 years (table 3-1). Life expectancy continued to increase dramatically in the first half of the 20th century, primarily because of decreased mortality among the young. Under the mortality conditions of 1950, life expectancy at birth had jumped to 68 years.

²²Life expectancy at birth is defined as the average number of years a person would live given the age-specific mortality rates of the specified year. In this chapter, life expectancy is shown also by sex, race, and at ages 65 and 85.

²³Irene B. Taeuber and Conrad Taeuber, Bureau of the Census, *People of the United States in the 20th Century*. U.S. Government Printing Office, Washington, DC, 1971, pp.497-499.

Since then, improvements have slowed. Nevertheless, in 1989, life expectancy at birth had reached a record high of 75.3 years.

There Is A Gender and Racial Gap in Life Expectancy

From 1900 to 1989, life expectancy at birth increased from 46 years for men to 72 years; for women, the increase was from 48 years to nearly 79 years. Life expectancy at birth has more than doubled for Blacks since 1900, from 33 years to 69 years in 1989. For Whites, the increase was from 48 years to 76 years. In the past few decades, the most dramatic recent reductions in mortality among

Life Expectancy at Birth and at 65 Years of Age, by Race and Sex: Selected Years 1900 to 1989

Specified age and year	All races			White		Black	
	Both sexes	Male	Female	Male	Female	Male	Female
At Birth							
1900 ^{1 2}	47.3	46.3	48.3	46.6	48.7	³ 32.5	³ 33.5
1950 ²	68.2	65.6	71.1	66.5	72.2	58.9	62.7
1960 ²	69.7	66.6	73.1	67.4	74.1	60.7	65.9
1970	70.9	67.1	74.8	68.0	75.6	60.0	68.3
1980	73.7	70.0	77.4	70.7	78.1	63.8	72.5
1989	75.3	71.8	78.6	72.7	79.2	64.8	73.5
At 65 Years							
1900-1902 ^{1 2}	11.9	11.5	12.2	11.5	12.2	10.4	11.4
1950 ²	13.9	12.8	15.0	12.8	15.1	12.9	14.9
1960 ²	14.3	12.8	15.8	12.9	15.9	12.7	15.1
1970	15.2	13.1	17.0	13.1	17.1	12.5	15.7
1980	16.4	14.1	18.3	14.2	18.4	13.0	16.8
1989	17.2	15.2	18.8	15.2	19.0	13.6	17.0

¹Death registration area only. The death registration area increased from 10 States and the District of Columbia in 1900 to the coterminous United States in 1933.

²Includes deaths of nonresidents of the United States.

³Figure is for the all other population.

Source: National Center for Health Statistics, *Health, United States, 1990*, Hyattsville, MD: Public Health Service, 1991, Table 15. 1989 "At birth" data from, Monthly Vital Statistics Report, Vol. 40, No. 8(S)2, January 7, 1992. 1989 "At 65 years" data unpublished final data from Mortality Statistics Branch.

the elderly have occurred among women and among the oldest old.

Survival of the Young

Eighty Percent of Newborns Would Survive to Age 65 Under the Mortality Conditions of 1990

Even as late as 1900, most people did not survive to old age, and few needed to worry about financing many years of retirement. In 1900, 1 in 5 White children and 1 in 3 children of other races died before their fifth birthday. Now, depending on sex and race, only 1 to 3 percent of such young children die. Under the mortality conditions of 1900, 41 percent of newborns would survive to age 65 (figure 3-1) compared with 80 percent under the mortality conditions of 1990.²⁴

Survival of the Elderly

Improvements in Life Expectancy at Age 65 Have Been Greatest Among White Men in the 1980's

The gains in remaining years of life at age 65 have been less dramatic than among the young. The average expectation of life increased from 1900-1902 to 1989 by 42 percent (from 11.9 years to 16.9 years). Over that period, the gain among the elderly was 6.8 years for White women, 5.6 years for Black women, 3.7 years for White men, and 3.2 years for Black men (table 3-1).

In the decade of the 1980's, improvements in life expectancy at age 65 have centered primarily on White men (table 3-1). They have registered continuous gains since 1980 when life expectancy at age 65 was 14.2 years and increased to 15.2 years by 1989

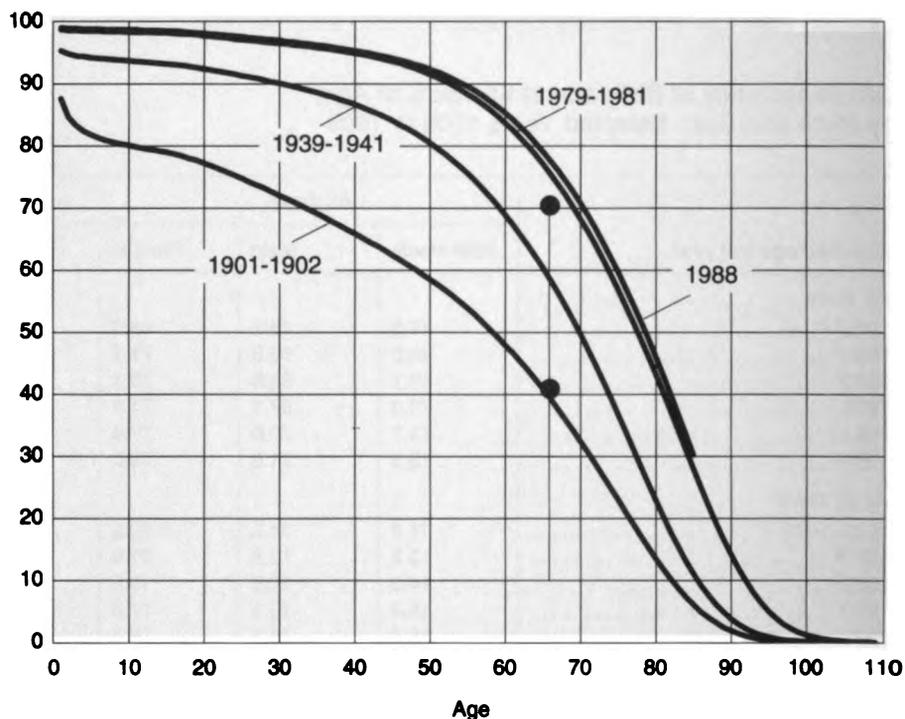
(that is, White men age 65 would be expected to live to age 80.2 under the mortality conditions of 1989). For Black men, the gain was less, from 13.0 years to 13.6 years. For White and Black women, there has been an increase in life expectancy of only 0.3 of a year at age 65 since 1981. Both would have nearly two decades of life remaining at age 65 under the mortality experience of 1989 (19.0 years for White women; 17.0 years for Black women).

Survival of the Oldest Old

White Women Are the Most Likely to Live to Age 85

White women are the most likely to live to age 85 but among those who survive to age 85, Black women are likely to continue living the most years. Under the mortality conditions of 1988, at age 85, Black women would live an additional 6.6 years compared with 6.3 years for White women. Black men at age 85 would

Figure 3-1.
Percentage of Persons Surviving to Each Exact Age According to Life Tables for United States: 1900-1988



Source: Data for 1901-1902 from: U.S. Bureau of the Census, "United States Life Tables 1890, 1901, 1910, and 1901-1910," U.S. Government Printing Office, 1921, table 1. Data for 1939-1941 from: U.S. Bureau of the Census, "United States Life Tables and Actuarial Tables 1939-1941," U.S. Government Printing Office, 1946, table 1. Data for 1979-1981 from: National Center for Health Statistics: United States Life Tables. "U.S. Decennial Life Tables for 1979-1981," Volume 1, No. 1, DHHS Pub. No. (PHS) 85-1150-1, Public Health Service, Washington, DC, U.S. Government Printing Office, August 1985, Table 1. Data for 1988 from: National Center for Health Statistics, "Vital Statistics of the United States, 1988," Volume II, Mortality, part A, Washington, DC, Public Health Service, 1991, Section 6.

²⁴The long-term effect of acquired immunodeficiency syndrome (AIDS) on life expectancy is unclear but 1989 data suggest that average future lifetime for infant boys (both White and Black) has continued to increase.

survive 5.5 years compared with 5.1 years for White men (table 3-2).

Some have argued the Black-White crossover in mortality experience at age 85 is the result of errors in the data for Blacks at the oldest ages. The crossover has shown up in the data since 1900 (table 3-3) and in multiple data sources. The consensus of opinion is leaning towards

the conclusion that the crossover is real.²⁵

Death before the mid-60's is unusual nowadays. Under the mortality

²⁵R.J. Havlik, B.M. Liu, M.G. Kovar, et al., National Center for Health Statistics, *Health Statistics on Older Persons, United States: 1986*, Vital and Health Statistics, Series 3, No. 25, Public Health Service. U.S. Government Printing Office, Washington, DC, June 1987, pg. 3.

conditions of 1979-81, 80 percent of Whites and Hispanics would survive to age 65. By comparison, 66 percent of Blacks and 71 percent of American Indians would survive to that age.²⁶ Of those who live to age 65, more than one-fourth would survive to age 90 under the mortality conditions of 1979-81 (decennial life tables for 1989-91 are not yet available) compared with only one-eighth in 1949-51 (figure 3-2).

World's Highest Life Expectancy

Japan Has the World's Highest Life Expectancy

Among countries with at least one million population, life expectancy at birth and at age 65 was highest in Japan according to official mortality data submitted by the countries to the United Nations and World Health Organization (table 3-4). Under the mortality conditions of 1987, life expectancy at birth for Japanese women is 82.1 years. At age 65, it is 20.4 additional years to age 85.4.

Number of Deaths and Death Rates

About 7 in 10 Deaths Occur to People Aged 65 or Older.

During 1989, nearly 2.2 million people died in the United States; nearly 1.1 million were aged 65 to 84 and 0.5 million were aged 85 and older.²⁷ In the future, analysts expect

²⁶National Center for Health Statistics, *U.S. Decennial Life Tables for 1979-81*, Vol. 1, No. 1. Public Health Service. U.S. Government Printing Office, Washington, DC, August 1985. Unpublished life table values for Hispanics from Greg Spencer, Population Division, Bureau of the Census. Life table values for American Indians and Alaskan Natives from Aaron Handler, Indian Health Service, American Indian and Alaskan Native Life Expectancy, 1979-81, for 28 reservation states (which include 67 percent of American Indians) for 1979-81.

²⁷National Center for Health Statistics, *Advance Report of Final Mortality Statistics, 1989*, Monthly Vital Statistics Report, Vol. 40, No. 8, Supplement 2 (January 7, 1992), Hyattsville, MD: Public Health Service, Table 2.

Table 3-2.
Average Number of Years of Life Remaining at Beginning of Age Interval: Abridged Life Table for 1988

Period of life between two exact ages	Male		Female	
	White	Black	White	Black
0 to 1 year	72.3	64.9	78.9	73.4
65 to 70 years	14.9	13.4	18.7	16.9
70 to 75 years	11.8	10.9	15.0	13.8
75 to 80 years	9.1	8.6	11.7	10.9
80 to 85 years	6.8	6.8	8.7	8.4
85 years and over	5.1	5.5	6.3	6.6

Source: National Center for Health Statistics, *Vital Statistics of the United States 1988*, Vol II, Part A, Life Tables, Table 6-1.

Table 3-3.
Life Expectancy at Age 85 Years, by Sex and Race: 1900 to 1988
(Average number of years of life remaining)

Year	Male		Female	
	White	Black	White	Black
1900 to 1902	3.8	4.0	4.1	5.1
1909 to 1911	3.9	4.5	4.1	5.1
1919 to 1921	4.1	4.5	4.2	5.2
1929 to 1931	4.0	4.3	4.2	5.5
1939 to 1941	4.0	5.1	4.3	6.4
1949 to 1951	4.4	5.4	4.8	6.2
1959 to 1961	4.3	5.1	4.7	5.4
1969 to 1971 ¹	4.6	6.0	5.5	7.1
1979 to 1981 ¹	5.1	5.7	6.3	7.2
1988 ¹	5.1	5.5	6.3	6.6

¹Deaths of nonresidents of the United States were excluded beginning in 1970.

Source: National Center for Health Statistics. Data for 1900-1971 from *Vital Statistics of the United States 1978*, Volume II-Section 5, Life Tables. Data for 1979-1981 from U.S. Decennial Life Tables for 1979-1981, Volume I, No. 1, U.S. Life Tables. Data for 1988 from *Vital Statistics of the United States 1988*, Volume II, Life Tables, Table 6-1.

the proportion of deaths at older ages to increase, especially after age 85. While 21 percent of all deaths occurred in 1989 at such old ages, this percentage would reach 30 percent by 2010 and at least 43 percent after 2050. After 2010, when the Baby Boom begins to reach age 65, demographers project the number of deaths to rise quickly. Under the Census Bureau's middle series, there would be 3.5 million deaths in 2030 which is more deaths than births.²⁸

The crude death rate for 1989 was 866.3 deaths per 100,000 population of all ages; the age-adjusted death rate²⁹ was 523.0 deaths per 100,000 population. From 1960 to 1989, death rates decreased by 31 percent for persons aged 65 to 74 (from 3,822 to 2,647). For persons 85 years and over, the decrease was 24 percent, less than for the young old (from 19,858 in 1960 to 15,035 in 1989). Oldest old men experienced a decrease of 17 percent from 1960 to 1989 (from 21,186 to 17,616). The death rates of oldest old women were reduced 26 percent over that period (from 19,008 to 14,034).³⁰

Death Rates Are Higher for Men Than for Women

At every age, death rates are higher for men than for women. Since 1960, death rates for persons aged 65 to 74 have decreased the least among Black men. Among White men aged 65 to 74, there were 4,848 deaths per 100,000 population in 1960 compared

²⁸Gregory Spencer, op.cit., P-25, No. 1018, Table N, pg. 13.

²⁹Age-adjusted death rates control for changes and variations in the age composition of the population. They are better indicators than crude death rates for showing changes in mortality risk over time and for showing differences among race-sex groups.

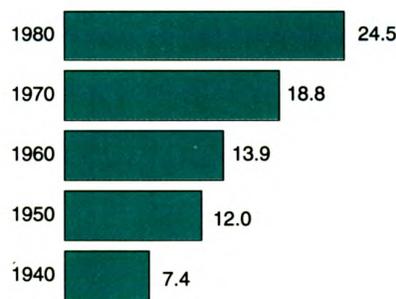
³⁰National Center for Health Statistics, op. cit., Monthly Vital Statistics Report, Vol. 40, no. 8(S)2, Tables 2 and 5; *Health United States, 1990*, Hyattsville, MD: Public Health Service, 1991, Table 23.

with 3,362 in 1989 (a 31-percent reduction). For Black men that age, the death rates were 5,799 in 1960 and 4,621 in 1989 (a 20-percent reduction). Since 1960, death rates decreased about 30 percent among White and Black women aged 65 to 74 (rates per 100,000: White women, 2,779 in 1960 and 1,948 in 1989; Black women, 4,064 and 2,855 respectively).³¹

Only among Black men do the majority of deaths occur before age 65 (table 3-5). According to data for 1989, 46 percent of Black men died at age 65 or older compared with 68 percent of White men. For Black women, 62 percent died at age 65 or older compared with 81 percent of White women. In 1989, 32 percent of White women died at age 85 or older compared with only 8 percent of Black men, 14 percent of White men, and 17 percent of Black women.

³¹National Center for Health Statistics, data for 1989 unpublished; data for 1960 includes deaths of nonresidents of the United States and is from: *Health United States, 1990*, Ibid.

Figure 3-2.
Percentage of Persons 65 Years Expected to Survive to Age 90: 1940-1980



Source: National Center for Health Statistics.

Black Women Have the Lowest Death Rates Among the Oldest Old

Among people aged 85 years and over, death rates are lowest for Black women and highest for White men. From 1960 to 1989, death rates per 100,000 population 85 years and over were reduced most for Whites and especially for White women: White men, from 21,750 to 17,978 (a 17-percent decrease); Black men, from 14,845 to 15,356 (an increase of 3 percent); for White women, from 19,478 to 14,243 (a 27-percent decrease); for Black women, from 13,053 to 12,523 (a 4-percent decrease).³²

Causes of Death

Heart Disease Is the Leading Cause of Death Among the Elderly.

Three of four elderly die from heart disease, cancer, or stroke. Influenza and pneumonia are also important causes of death after age 85.³³ Most people who died of stroke (also called "cerebrovascular diseases") were 75 or older. Women were also more subject to stroke than men.³⁴

Heart disease is the leading cause of death within the elderly population. Among those aged 65 to 74, heart diseases and cancers were equally prevalent as causes of death; each comprised about one-third of all deaths in that age group in 1990. As age advances, heart disease is an increasingly larger share of deaths. Heart diseases were the cause of death in 1990 for 44 percent of those 85 years and older.³⁵

Since the mid-1960's, there has been a consistent decline in deaths

³²Ibid.

³³Ibid., Table 8.

³⁴National Center for Health Statistics, *Characteristics of Persons Dying From Cerebrovascular Diseases, Advance Data*, Number 180 (February 8, 1990), pg. 2.

³⁵National Center for Health Statistics, op.cit., Monthly Vital Statistics Report, Vol. 39, No. 13, Table 8.

Table 3-4.
Life Expectancy at Birth and at 65 Years of Age, by Sex: Selected Countries, 1982 and 1987
 (Data are based on reporting by countries)

Country	Life expectancy at birth		Life expectancy at 65 years		Country	Life expectancy at birth		Life expectancy at 65 years	
	1982 ¹	1987 ²	1982 ¹	1987 ²		1982 ¹	1987 ²	1982 ¹	1987 ²
Male					Female				
Japan.....	74.5	75.9	15.5	16.4	Japan.....	80.2	82.1	18.9	20.4
Sweden.....	73.5	74.2	14.6	15.1	France.....	79.1	81.1	18.7	20.2
Hong Kong.....	73.5	74.2	15.8	15.0	Switzerland.....	79.7	81.0	18.7	19.7
Greece.....	73.6	74.1	15.4	15.4	Sweden.....	79.6	80.4	18.6	19.1
Switzerland.....	72.9	74.0	14.7	15.4	Netherlands.....	79.7	80.3	18.8	19.3
Netherlands.....	72.8	73.6	14.1	14.4	Canada.....	79.0	80.2	18.7	19.6
Israel.....	72.6	73.4	14.3	14.9	Australia.....	78.3	79.8	18.1	19.0
Canada.....	72.0	73.3	14.5	15.1	Norway.....	79.8	79.8	18.7	18.8
Australia.....	71.3	73.2	13.8	14.9	Hong Kong.....	79.9	79.7	19.9	18.5
Spain.....	72.6	73.1	14.8	15.0	Spain.....	78.8	79.7	18.1	18.4
Cuba.....	72.2	73.0	15.8	16.2	Italy.....	78.2	79.2	17.7	18.2
Norway.....	72.7	72.8	14.5	14.4	Greece.....	78.3	78.9	17.6	17.7
Italy.....	71.5	72.7	14.1	14.3	Finland.....	78.8	78.9	17.7	17.7
England and Wales.....	71.3	72.6	13.1	13.9	Federal Republic of				
France.....	70.9	72.6	14.3	15.4	Germany.....	77.2	78.9	17.0	18.1
Kuwait.....	69.0	72.5	12.5	14.5	Puerto Rico ³	77.4	78.9	18.0	19.2
Federal Republic of					United States	78.1	78.4	18.7	18.7
Germany.....	70.5	72.2	13.2	14.0	England and Wales.....	77.3	78.3	17.2	17.9
Costa Rica.....	71.0	72.1	14.8	14.0	Austria.....	76.6	78.2	16.6	17.6
Denmark.....	71.8	71.9	14.0	14.2	Belgium.....	76.8	78.2	16.9	17.8
Ireland.....	70.1	71.6	12.6	13.1	Denmark.....	77.9	78.0	18.1	18.2
Austria.....	69.4	71.6	13.2	14.3	Portugal.....	76.1	77.5	16.8	17.6
United States	70.9	71.5	14.5	14.8	New Zealand.....	76.9	77.3	17.7	17.6
Belgium.....	70.0	71.4	13.0	13.6	Ireland.....	75.6	77.3	15.7	16.6
Singapore.....	69.1	71.3	12.6	13.5	Northern Ireland.....	75.7	77.2	16.1	16.9
Northern Ireland.....	69.3	71.1	12.4	13.0	Israel.....	75.8	77.0	15.5	16.0
New Zealand.....	70.7	71.0	13.5	13.7	Costa Rica.....	76.0	76.9	16.6	16.8
Puerto Rico ³	70.5	70.7	15.3	16.3	Scotland.....	75.3	76.6	15.9	16.7
Finland.....	70.2	70.7	13.3	13.5	Singapore.....	74.5	76.5	15.5	16.6
Portugal.....	69.1	70.6	13.7	14.3	Cuba.....	75.9	76.5	17.9	17.9
Scotland.....	69.2	70.5	12.2	12.8	German Democratic				
Chile.....	67.8	70.0	13.3	13.7	Republic.....	75.1	76.0	15.2	15.6
German Democratic					Kuwait.....	73.8	75.8	15.2	16.2
Republic.....	69.1	69.9	12.3	12.7	Chile.....	74.7	75.7	16.8	16.7
Yugoslavia.....	67.8	68.5	12.9	13.3	Czechoslovakia.....	74.6	75.3	14.9	15.5
Bulgaria.....	68.5	68.3	12.7	12.6	Poland.....	75.4	75.2	16.3	15.9
Czechoslovakia.....	67.2	67.7	11.6	11.9	Bulgaria.....	74.0	74.6	14.8	15.0
Romania.....	67.1	67.1	13.0	12.8	Yugoslavia.....	73.7	74.3	15.4	15.6
Poland.....	67.3	66.8	12.7	12.3	Hungary.....	73.2	73.9	14.9	15.4
Hungary.....	65.6	65.7	11.7	12.1	U.S.S.R.....	(NA)	73.9	(NA)	16.2
U.S.S.R.....	(NA)	65.1	(NA)	12.5	Romania.....	72.5	72.7	14.7	14.7

Notes: This table was compiled before Germany became unified and U.S.S.R. became a commonwealth. Rankings are from highest to lowest life expectancy based on the latest available data for countries or geographic areas with at least 1 million population. This table is based on official mortality data from the country concerned, as submitted to the United Nations Demographic Yearbook or the World Health Statistics Annual.

NA Not available.

¹Data for Costa Rica are for 1980; data for Belgium are for 1979-1982; data for Ireland are for 1980-1982; data for Puerto Rico are for 1981-1983; data for Cuba, France, Italy, Singapore, and Spain are for 1981; and data for Northern Ireland are for 1983.

²Data for Romania are for 1984; data for Spain are for 1985; data for Puerto Rico are for 1985-1987; data for Belgium, Greece, Israel, and Italy are for 1986; data for New Zealand are for 1986-1988; and data for Costa Rica and Czechoslovakia are for 1988.

³Data are from the Informe Annual de Estadísticas Vitales, 1983 and 1987, University of Puerto Rico.

Source: National Center for Health Statistics, *Health, United States, 1990*, Hyattsville, MD, Public Health Service, 1991, Table 22.

Table 3-5.
Deaths and Death Rates, by Age, Sex, and Race: 1989
 (Rates per 100,000 population in specified group.)

Age	All races			White			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Number									
All ages	2,150,466	1,114,190	1,036,276	1,853,841	950,852	902,989	267,642	146,393	121,249
Under 1 year.....	39,655	22,361	17,294	25,794	14,760	11,034	12,527	6,842	5,685
1 to 4 years.....	7,292	4,110	3,182	5,133	2,910	2,223	1,830	1,021	809
5 to 9 years.....	4,313	2,510	1,803	3,187	1,864	1,323	953	559	394
10 to 14 years.....	4,601	2,914	1,687	3,467	2,211	1,256	967	603	364
15 to 19 years.....	15,570	11,263	4,307	11,945	8,450	3,495	3,120	2,456	664
20 to 24 years.....	20,918	15,902	5,016	15,232	11,560	3,672	5,037	3,846	1,191
25 to 29 years.....	26,930	19,932	6,998	19,514	14,640	4,874	6,685	4,772	1,913
30 to 34 years.....	33,594	24,222	9,372	23,876	17,498	6,378	8,947	6,203	2,744
35 to 39 years.....	37,862	26,742	11,120	26,885	19,234	7,651	10,050	6,938	3,112
40 to 44 years.....	43,057	28,586	14,471	32,046	21,376	10,670	10,025	6,583	3,442
45 to 49 years.....	50,857	32,718	18,139	38,963	25,166	13,797	10,781	6,857	3,924
50 to 54 years.....	67,409	42,105	25,304	52,670	32,966	19,704	13,329	8,317	5,012
55 to 59 years.....	101,474	62,981	38,493	82,414	51,499	30,915	17,258	10,446	6,812
60 to 64 years.....	158,584	96,628	61,956	133,021	81,919	51,102	23,262	13,340	9,922
65 to 69 years.....	219,097	129,847	89,250	187,834	112,194	75,640	28,452	16,031	12,421
70 to 74 years.....	262,127	148,559	113,568	230,704	131,599	99,105	28,507	15,209	13,298
75 to 79 years.....	301,225	157,090	144,135	268,221	140,663	127,558	29,815	14,555	15,260
80 to 84 years.....	297,981	135,580	162,401	270,882	123,249	147,633	24,205	10,644	13,561
85 years and over.....	457,358	149,735	307,623	421,669	136,813	284,856	31,725	11,056	20,669
Not stated.....	562	405	157	384	281	103	167	115	52
Percent									
All ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 1 year.....	1.8	2.0	1.7	1.4	1.6	1.2	4.7	4.7	4.7
1 to 4 years.....	0.3	0.4	0.3	0.3	0.3	0.2	0.7	0.7	0.7
5 to 9 years.....	0.2	0.2	0.2	0.2	0.2	0.1	0.4	0.4	0.3
10 to 14 years.....	0.2	0.3	0.2	0.2	0.2	0.1	0.4	0.4	0.3
15 to 19 years.....	0.7	1.0	0.4	0.6	0.9	0.4	1.2	1.7	0.5
20 to 24 years.....	1.0	1.4	0.5	0.8	1.2	0.4	1.9	2.6	1.0
25 to 29 years.....	1.3	1.8	0.7	1.1	1.5	0.5	2.5	3.3	1.6
30 to 34 years.....	1.6	2.2	0.9	1.3	1.8	0.7	3.3	4.2	2.3
35 to 39 years.....	1.8	2.4	1.1	1.5	2.0	0.8	3.8	4.7	2.6
40 to 44 years.....	2.0	2.6	1.4	1.7	2.2	1.2	3.7	4.5	2.8
45 to 49 years.....	2.4	2.9	1.8	2.1	2.6	1.5	4.0	4.7	3.2
50 to 54 years.....	3.1	3.8	2.4	2.8	3.5	2.2	5.0	5.7	4.1
55 to 59 years.....	4.7	5.7	3.7	4.4	5.4	3.4	6.4	7.1	5.6
60 to 64 years.....	7.4	8.7	6.0	7.2	8.6	5.7	8.7	9.1	8.2
65 to 69 years.....	10.2	11.7	8.6	10.1	11.8	8.4	10.6	11.0	10.2
70 to 74 years.....	12.2	13.3	11.0	12.4	13.8	11.0	10.7	10.4	11.0
75 to 79 years.....	14.0	14.1	13.9	14.5	14.8	14.1	11.1	9.9	12.6
80 to 84 years.....	13.9	12.2	15.7	14.6	13.0	16.3	9.0	7.3	11.2
85 years and over.....	21.3	13.4	29.7	22.7	14.4	31.5	11.9	7.6	17.0
Not stated.....	-	-	-	-	-	-	0.1	0.1	-

Table 3-5.

Deaths and Death Rates, by Age, Sex, and Race: 1989—Continued
(Rates per 100,000 population in specified group.)

Age	All races			White			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Death Rates									
All ages ¹	866.3	921.0	814.3	887.2	930.2	846.0	872.9	1,006.5	752.4
Under 1 year ²	1,005.2	1,107.0	898.4	815.5	909.4	716.0	2,023.7	2,179.0	1,863.9
1 to 4 years	49.2	54.2	44.0	43.2	47.8	38.4	80.6	88.4	72.5
5 to 9 years	23.7	26.9	20.3	21.8	24.8	18.6	34.0	39.3	28.6
10 to 14 years	27.1	33.5	20.4	25.5	31.7	19.0	36.1	44.3	27.6
15 to 19 years	87.4	123.9	49.4	83.3	115.3	49.8	113.1	176.2	48.6
20 to 24 years	111.8	169.7	53.7	99.2	149.5	48.1	190.0	300.7	86.8
25 to 29 years	124.1	183.5	64.6	107.8	160.1	54.4	236.5	355.6	128.8
30 to 34 years	151.8	218.6	84.8	128.6	186.4	69.5	326.1	481.2	188.6
35 to 39 years	193.0	274.8	112.4	161.7	230.6	92.4	444.7	670.3	254.0
40 to 44 years	255.0	344.7	168.5	220.2	295.7	145.7	580.8	841.8	364.2
45 to 49 years	376.1	495.7	262.1	333.8	437.1	233.3	772.8	1,095.4	510.3
50 to 54 years	592.6	764.3	431.4	538.1	688.1	394.2	1,089.9	1,528.9	738.1
55 to 59 years	946.1	1,229.9	686.8	885.2	1,149.5	640.1	1,546.4	2,056.3	1,120.4
60 to 64 years	1,459.3	1,902.5	1,070.4	1,390.1	1,821.2	1,007.7	2,247.5	2,856.5	1,749.9
65 to 69 years	2,154.3	2,803.9	1,611.6	2,080.3	2,716.6	1,544.0	3,108.1	3,987.8	2,411.8
70 to 74 years	3,271.7	4,288.7	2,496.5	3,207.3	4,217.9	2,432.6	4,312.7	5,550.7	3,445.1
75 to 79 years	4,993.0	6,586.6	3,951.1	4,939.6	6,551.6	3,886.6	6,134.8	7,783.4	5,103.7
80 to 84 years	7,993.1	10,381.3	6,705.2	7,946.1	10,365.8	6,650.1	9,455.1	11,696.7	8,218.8
85 years and over	15,034.8	17,615.9	14,033.9	15,272.3	17,978.1	14,242.8	13,442.8	15,355.6	12,526.7

- Zero or rounds to zero.

¹Figures for age not stated are included in "All ages" but are not distributed among age groups.

²Death rates under 1 year (based on population estimates) differ from infant mortality rates (based on live births).

Source: National Center for Health Statistics, Monthly Vital Statistics Report, Vol. 40, No. 8(S)2, January 7, 1992.

attributable to coronary heart disease (CHD). Death rates from CHD are highest among men but are declining more rapidly among White men than among other race-sex groups. A study by Sempos, et.al.³⁶, showed that from 1968 to 1975, the annual rate of decline in deaths due to CHD was about the same for White men, Black men, and Black women, but somewhat lower for White women. Since 1976, the decline has continued for the four groups but the rapid rate of decline observed in the 1968-to-1975 period has continued only for White men.

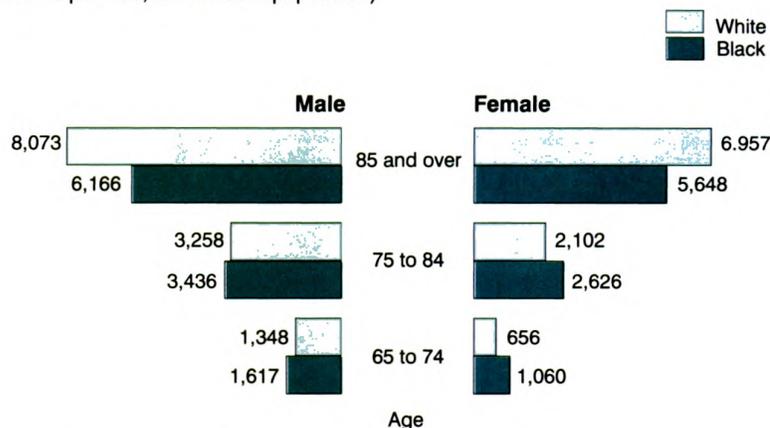
Men are likely to succumb to heart disease at a younger age than are women. Only 44 percent of heart disease deaths occurred to men after age 75 compared with 71 percent for women in 1986. The largest number of heart disease deaths for White men occurred in the 65-to-74 age group; for Black men, the largest number occurred in the 45-to-64 age group. Among White women, heart disease deaths increased with increasing age. Among Black women, however, the largest number of heart disease deaths occurred in the 75-to-84 age group.³⁷

Among the young old, Black men, followed by White men, have the highest rates of death from both heart disease (figure 3-3) and cancer (figure 3-4). For the 85-and-over group, death rates from heart disease are lower for Blacks than for Whites and are very similar

³⁶C. Sempos, R. Cooper, M.G. Kovar, and M. McMillen, "Divergence of the Recent Trends in Coronary Mortality for the Four Major Race-Sex Groups in the United States," *American Journal of Public Health*, Vol. 78, No. 11 (November 1988), pp. 1422-1427.

³⁷Gloria Kapantais and Eve Powell-Griner, National Center for Health Statistics, *Characteristics of Persons Dying of Diseases of Heart: Preliminary Data from the 1986 National Mortality Followback Survey*, Advance Data From Vital and Health Statistics, Number 172 (August 24, 1989), Hyattsville, MD: Public Health Service, 1989, pg. 2 and Table 1.

Figure 3-3.
Death Rates for Diseases of the Heart for Persons 65 Years and Over, by Age, Sex, and Race: 1988
(Deaths per 100,000 resident population)



Source: National Center for Health Statistics, *Health, United States, 1990*, Hyattsville, MD: Public Health Service, 1991, Table 27.

for cancer. For cerebrovascular diseases, Blacks have higher death rates than Whites until the oldest ages (figure 3-5).

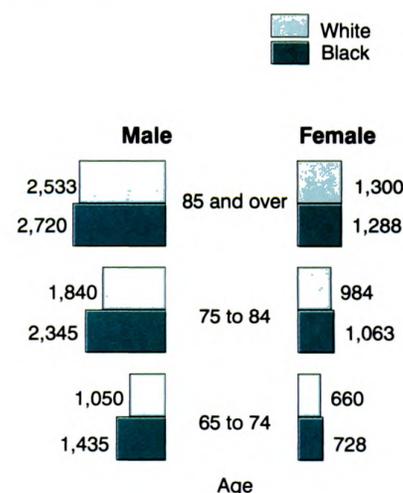
Heart disease occurs the least among Asian/Pacific Islander elderly; death rates were about 60 percent lower than the rate of 2,079 per 100,000 elderly White persons in 1988. For Hispanic and American Indian elderly, the death rates for heart disease were about 35 to 45 percent below that for White elderly. Deaths from heart disease for Black elderly was about 5 percent higher than for White elderly.³⁸

Smoking has been associated with all of the three major causes of death. From the 1987 Health Interview Survey³⁹, we learn that men were more likely to smoke and to smoke more heavily than women. Men, however,

³⁸National Center for Health Statistics, op.cit., *Health United States, 1990*, pg. 16.

³⁹National Center for Health Statistics, *Smoking and Other Tobacco Use: United States, 1987*, Vital and Health Statistics, Series 10, No. 169, pg. 5, Table 1. Historical data shown in *Health United States, 1990*, op.cit., Table 55.

Figure 3-4.
Death Rates for Malignant Neoplasms for Persons 65 Years and Over, by Age, Sex, and Race: 1988
(Deaths per 100,000 resident population)

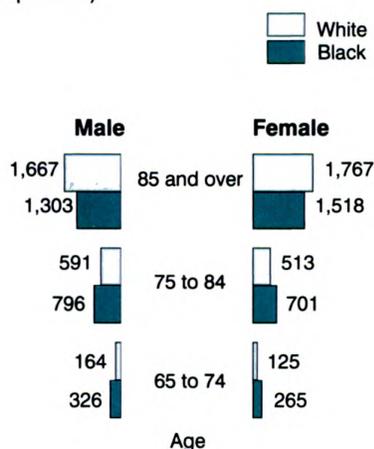


Source: National Center for Health Statistics, *Health, United States, 1990*, Hyattsville, MD: Public Health Service, 1991, Table 29.

were relatively more likely to have quit smoking than women. The prevalence of smoking is lowest in the oldest age groups. In 1987, 19 percent of men aged 65 to 74 smoked cigarettes compared with only 9 percent

Figure 3-5.
Death Rates for Cerebrovascular Diseases for Persons 65 Years and Over, by Age, Sex, and Race: 1988

(Deaths per 100,000 resident population)



Source: National Center for Health Statistics, *Health, United States, 1990*, Hyattsville, MD: Public Health Service, 1991, Table 28.

of men aged 75 years and over. The majority of men in both age groups had smoked at some time in their lives. Only 25 percent of men aged 65 to 74 had never smoked cigarettes compared with 37 percent of men 75 and over. The majority of women, however, had never smoked (60 percent of women aged 65 to 74 and 76 percent of women aged 75 years and over). Since 1965, the likelihood of smoking in their elder years has decreased among elderly men but increased among elderly women (table 3-6). Elderly Black men have the highest proportion who smoke cigarettes among the race-sex groups.

Even though heart disease is the major killer of the elderly, there have been meaningful decreases in such death rates since 1960. The declines were largest for those aged 65 to 74 years and for Whites. Black men have experienced the least decline in deaths from heart disease (table 3-7).

Death rates from cancer have been increasing among the elderly since 1960. The increases are especially noticeable among Black men. White women have had lower rates of increase than White men and Blacks

(table 3-8). Death rates in 1988 for cancer were lowest for Asian/Pacific Islander elderly (549 per 100,000) followed by Hispanic elderly. Compared with the cancer death rates of elderly Whites (1,062 per 100,000), the rates for elderly Asian/Pacific Islanders was nearly 50 percent lower, and the rate for Hispanics nearly 40 percent lower. Cancer mortality for elderly Blacks was 17 percent higher than for elderly Whites.⁴⁰

The elimination of deaths from heart disease would add the greatest number of years to life expectancy. According to 1979-81 mortality data, elimination of heart disease deaths would add 5.1 years at age 65 and 3.5 years at age 85. The complete eradication of cancer alone would add much less, only 1.8 years at age 65 and 0.4 years for those aged 85 and over.⁴¹

There has been an increase in multiple causes of death, as shown in a study by Guralnik, et al.⁴² They found that more than one cause of death was reported in 35 percent of deaths in 1917 compared with 60 percent in 1955 and 73 percent in 1979. They attribute this change to the increase in the average age at death, to fewer deaths resulting from acute and infectious diseases, and to better diagnoses and reporting of data.

Implications

The world's history is replete with legends and folklore regarding the value

Table 3-6.
Percentage of Persons 65 Years and Over Who Smoked Cigarettes at Time of Survey, by Sex and Race: 1965 to 1987

Year	Male			Female		
	Total	White	Black	Total	White	Black
1987	17.2	16.0	30.3	13.7	13.9	11.7
1979	20.9	20.5	26.2	13.2	13.8	8.5
1974	24.8	24.3	29.7	12.0	12.3	8.9
1965	28.5	27.7	36.4	9.6	9.8	7.1

Note: Civilian noninstitutional population who has smoked at least 100 cigarettes and who smoked at the time of the survey; includes occasional smokers. Excludes unknown smoking status.

Source: National Center for Health Statistics, *Health, United States, 1990*, Hyattsville, MD: Public Health Service, 1991, Table 55.

⁴⁰National Center for Health Statistics, op.cit., *Health, United States, 1990*, pg. 16.

⁴¹National Center for Health Statistics, *U.S. Decennial Life Tables for 1979-81*, Vol. 1, No. 1, DHHS Pub. No. (PHS) 85-1150-1, Public Health Service, U.S. Government Printing Office, Washington, DC, August 1985.

⁴²Jack M. Guralnik, Andrea Z. LaCroix, Donald F. Everett, and Mary Grace Kovar, National Center for Health Statistics, *Aging in the Eighties: The Prevalence of Comorbidity and Its Association With Disability*, Advance Data, Number 170 (May 26, 1989), pg. 1.

of life and efforts to prolong it. There are many stories of people who possess the secrets of eternal youth such as the Methuselah theme of Judeo-Christian tradition and the "fountain of youth" stories that led Ponce de Leon to Florida. Various philosophies have taught techniques that were supposed to improve longevity. A basic tenet of modern medicine is the prolongation of life.

Cowgill says it is a general principal of human behavior to value life and seek ways to prolong it, even in old age.⁴³ The changes in life expectancy and the change from a large proportion of deaths occurring in early ages to the oldest ages, however, have ponderous implications for financing a long life even if medical science somehow manages to make old age perfectly healthy.

As life expectancy continues to increase, issues arise about the quality of life of older people. The number of years of health in relation to the number of years of chronic illness are important (active life expectancy is discussed below). The financial soundness of retirement plans could be critical to an ever-larger proportion of the population.⁴⁴ We can expect to see more long-term chronic illness, disability, and dependency. More people may live long enough to suffer from the cognitive diseases of senile dementia and Alzheimer's disease. More young old will have multiple oldest old family members who need care and attention. More of us may be invited to 50th wedding anniversary parties as well. Such

⁴³Donald O. Cowgill, "A Theory of Aging in Cross-Cultural Perspective," in *Aging and Modernization*, Donald O. Cowgill and Lowell D. Holmes (eds.), New York: Meredith Corporation, 1972, pp. 6-7. See also Gerald J. Gruman, *A History of Ideas about the Prolongation of Life*, Philadelphia: The American Philosophical Society, 1966.

⁴⁴Metropolitan Life Insurance, *New Longevity Record in the United States*, Statistical Bulletin, Vol. 69, No. 3 (July-Sept., 1988), pg. 15.

factors have vital implications for everyone.

Health and Disability Status

Many assume health among the elderly has improved because more are living longer. Others hold a contradictory image of the elderly as dependent and frail. Neither view is totally accurate. Poor health is not as prevalent as many assume, especially among the young old. About one-fourth (26.3 percent in 1989) of noninstitutionalized persons aged 65 to 74 consider their health to be only fair or poor as do about one-third (32.0 percent) of noninstitutionalized persons 75 years and over.⁴⁵

⁴⁵National Center for Health Statistics, *op.cit.*, *Health, United States, 1990*, Table 54.

Mortality is a limited measure of the health of a population. While more people live to the oldest ages, they may live their increased years with multiple illnesses and disabilities. As described above, heart disease, cancer, and stroke cause many deaths. These diseases also contribute to chronic health problems and functional dependency. For example, doctors now save the lives of many who would have died from heart attacks in past years. The survivors often face the remainder of their years with chronic, limiting illness or conditions, however. Other elderly have chronic diseases such as arthritis, diabetes, osteoporosis, senile dementia, and so forth. Among those 85 years and over, more than 1 in 5 (22 percent) live in an institution and

Table 3-7.
Death Rates for Diseases of the Heart,
by Age, Race, and Sex: 1960 and 1988
(Deaths per 100,000 resident population)

Age, race, and sex	Deaths		Percent change, 1960 to 1988
	1960 ¹	1988	
65 to 74 Years			
White males	2,297.9	1,348.0	-41.34
Black males	2,281.4	1,616.7	-29.14
White females	1,229.8	656.2	-46.64
Black females	1,680.5	1,060.0	-36.92
75 to 84 Years			
White males	4,839.9	3,257.6	-32.69
Black males	3,533.6	3,435.7	-2.77
White females	3,629.7	2,101.5	-42.10
Black females	2,926.9	2,625.6	-10.29
85 Years and Over			
White males	10,135.8	8,072.5	-20.36
Black males	6,037.9	6,165.7	2.12
White females	9,280.8	6,957.3	-25.04
Black females	5,650.0	5,648.1	-0.03

¹Includes deaths of nonresidents of the United States.

Source: National Center for Health Statistics, *Health, United States, 1990*, Hyattsville, MD: Public Health Service, 1991, Table 27.

most have serious health problems for which they require assistance. Of the noninstitutionalized oldest old, 1 in 5 (19.9 percent) are unable to carry on a major activity and 2 in 5 (39.7 percent) have a condition which limits their activities.⁴⁶

Chronic Illness

Chronic Illnesses Increase With Age and Are More Common Among Women

As chronological age increases, so too does the probability of having multiple chronic illnesses. A study of

⁴⁶Havlik, op.cit., pp. 71-72, Table 59 (p. 75), Table 14 (p. 21). Data on the nursing home population from the 1985 Nursing Home Survey. Data on degree of activity limitations are from the 1983-1984 National Health Interview Survey. Major activities include both self-care activities of daily living (ADL) and instrumental activities of daily living (IADL). IADL activities include meal preparation, shopping, managing money, using the telephone, and doing housework.

by Guralnik et.al.⁴⁷, found that the proportion of the population 60 years and older with two or more common chronic conditions (referred to as comorbidity) was higher for women than for men. For example, among those 80 years of age and older, 70 percent of the women and 53 percent of the men had two or more of the nine common conditions studied.

With increasing age, rates of hearing and visual impairments increase rapidly. Half of the oldest old population (noninstitutionalized) had problems with hearing. More than half of the noninstitutionalized 65-and-older population reported in the 1982-1984 National Health Interview Survey

⁴⁷Guralnik, et.al., op. cit., pg. 3. The study looked at nine common chronic conditions: arthritis, hypertension, cataracts, heart disease, varicose veins, diabetes, cancer (except nonmelanoma skin cancer), osteoporosis or hip fracture, and stroke.

they had arthritis. The incidence was especially high among women and Blacks (for example, nearly 2 in 3 elderly Black women reported they suffer from arthritis). The second most frequently reported chronic condition was hypertension, a disease especially prevalent among elderly Black females.⁴⁸

Functional Limitations

Difficulty in performing personal care tasks and home management tasks are referred to as "functional limitations." These are measures of ability to live independently and are used as indicators of the need for health services. The scale used to measure the ability to perform physical tasks related to personal care is called the Activities of Daily Living (ADL's). Wiener, et.al.⁴⁹, identified over 40 indexes that use different lists of activities to assess ADL's. The indexes measure the degree of independence in performing physical activities and most include bathing, dressing, getting out of bed, continence, and feeding oneself. Wiener, et.al., note that for the elderly, ADL measures have displaced the National Health Interview Survey's disability classification of limitations in ability to perform a major activity. ADL's are more specific and avoid situational differences among respondents. ADL's have also been good predictors of health behaviors. ADL's do not cover all aspects of disability, however, and are not sufficient by themselves to estimate the need for long-term care. Some elderly have cognitive impairments not measured by ADL limitations. An additional commonly-used measure,

⁴⁸U.S. Bureau of the Census, *Statistical Abstract*, table 192, pg. 119; Havlik, op.cit., pg. 20, table 17, average annual rates from the National Health Interview Survey, 1982-1984.

⁴⁹J.M. Wiener, R.J. Hanley, R. Clark, J.F. Van Nostrand, "Measuring the Activities of Daily Living: Comparisons Across National Surveys," *The Journals of Gerontology*, Volume 45, No. 6 (November 1990), pp. S229-237.

Table 3-8.
Death Rates for Malignant Neoplasms,
by Age, Race, and Sex: 1960 and 1988
(Deaths per 100,000 resident population)

Age, race, and sex	Deaths		Percent change, 1960 to 1988
	1960 ¹	1988	
65 to 74 Years			
White males	887.3	1,050.4	18.4
Black males	938.5	1,434.5	52.9
White females	562.1	660.0	17.4
Black females	541.6	728.3	34.5
75 to 84 Years			
White males	1,413.7	1,839.7	30.1
Black males	1,053.3	2,344.5	122.6
White females	939.3	984.4	4.8
Black females	696.3	1,062.6	52.6
85 Years and Over			
White males	1,791.4	2,533.0	41.4
Black males	1,155.2	2,720.0	135.5
White females	1,304.9	1,300.1	-0.4
Black females	728.9	1,288.0	76.7

¹Includes deaths of nonresidents of the United States.

Source: National Center for Health Statistics, *Health, United States, 1990*, Hyattsville, MD: Public Health Service, 1991, Table 29.

called Instrumental Activities of Daily Living (IADL's), measures more complex tasks. They usually include handling personal finances, preparing meals, shopping, doing housework, traveling, using the telephone, and taking medications.

There are substantial differences across 11 national surveys in the estimated size of the elderly population with ADL disabilities, as shown in the study by Wiener, et.al. The various surveys have different purposes, use different lists of activities to measure limitations, and ask about the activities in different ways. Wiener, et.al. found that differences among surveys in the specific activities measured, as well as the criteria used to differentiate between dependence and independence accounted for much of the variation in estimates of disability. Some variation is the result of differences in the year of data collection, population included, and survey methodology. Wiener, et.al., note that a major impact on ADL estimates of the disabled are affected by whether they include those who can perform an activity if mechanical assistance is available. Despite the differences, the various surveys generally show similar trends among the elderly even though the levels reported are different. Findings from some of the surveys are discussed below.

The Need for Personal Assistance With Everyday Activities Increases With Age.

The extent of need for personal assistance with everyday activities is an indicator of need for health and social services. Questions were asked in the 1986 Survey of Income and Program Participation (SIPP) of the civilian noninstitutionalized population about the need for personal assistance with everyday activities. This information was analyzed by Harpine,

McNeil, and Lamas.⁵⁰ Under the definition used by this study, 4.4 million elderly persons needed assistance with one or more activities. Of this total, 3 in 5 (61.6 percent) were 75 years or older.

Harpine, et.al., found a strong relationship between age and the need for assistance. Among persons under 65 years of age, only 2 percent needed assistance. At older ages, the proportion requiring assistance ranged from 9 percent of those

⁵⁰Cynthia Harpine, John McNeil, and Enrique Lamas, U.S. Bureau of the Census, *The Need For Personal Assistance With Everyday Activities: Recipients and Caregivers*, Current Population Reports, Series P-70, No. 19. U.S. Government Printing Office, Washington, DC, June 1990, table A, pg. 3. The questions on need for personal assistance were whether a noninstitutionalized person required the help of another person, because of a health condition which had lasted three months or longer, to (1) take care of personal needs such as dressing, eating, or personal hygiene, (2) get around outside the household, (3) do light housework, (4) prepare meals, and (5) keep track of bills and money. These are referred to as "everyday activities" and are somewhat different than the lists of activities included in two other measures used frequently, Activities of Daily Living (ADL's) and Instrumental Activities of Daily Living (IADL's). The ADL's and IADL's will be described in a later section.

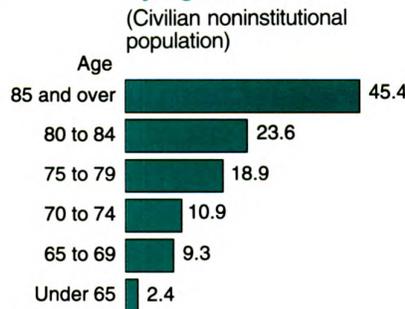
aged 65 to 69 up to 45 percent for those aged 85 or older (figure 3-6). Within each age category, women were more likely to need assistance than men. For example, among non-institutionalized persons aged 75 and older, 30 percent of women needed help compared with 17 percent of men (figure 3-7). Elderly Blacks were more likely than Whites to need assistance (figure 3-8).⁵¹

Those who needed assistance were more likely to live in households with lower income levels than persons who did not require assistance.

Estimates of the Size of the Dependent Elderly Population Vary

We can get an idea about the size of the elderly population who are dependent. Wiener, et.al., found that across national surveys, 5 to 8 percent of the noninstitutional elderly received help in one or more of the following five ADL's: bathing, dressing, moving out of beds and chairs, toileting, and eating.⁵² A broader definition of functionally dependent elderly includes those in nursing homes and the noninstitutionalized elderly with a more extensive list of both ADL's and IADL's. Hing and Bloom define functional dependency as persons dependent in at least one of seven ADL's or seven IADL's.⁵³ Under this definition, Hing and Bloom estimated 6.7 million non-institutionalized elderly with functional dependencies. In 1985, all 1.3 million elderly nursing home residents were

Figure 3-6.
Percentage of Persons Needing Assistance With Everyday Activities, by Age: 1986



Source: U.S. Bureau of the Census, *The Need for Personal Assistance With Everyday Activities: Recipients and Caregivers*, Current Population Reports, Series P-70, No. 19. U.S. Government Printing Office, Washington, DC, 1990, table B.

⁵¹The percentage of elderly persons of Hispanic origin (19.2 percent) who needed assistance was not statistically different from the percentages of Whites (15.4 percent) or of Blacks (22.7 percent) who needed assistance.

⁵²Wiener, et.al., op.cit., Table 1 (pg. S234) and pg. S235.

⁵³E. Hing and B. Bloom, National Center for Health Statistics, *Long-Term Care for the Functionally Dependent Elderly*, Vital and Health Statistics, Series 13, No. 104, DHHS Pub. No. (PHS)90-1765, Hyattsville, MD: Public Health Service, 1990, pg. 6. ADL's include bathing, dressing, eating, getting in or out of beds and chairs, mobility, using the toilet, and continence. IADL's include preparing meals, shopping, managing money, using the telephone, doing light housework, and getting outside.

Figure 3-7.
**Percentage of Persons Needing Assistance With
 Everyday Activities, by Age and Sex: 1986**

(Civilian noninstitutional population)



Source: U.S. Bureau of the Census, *The Need for Personal Assistance With Everyday Activities: Recipients and Caregivers*, Current Population Reports, Series P-70, No. 19. U.S. Government Printing Office, Washington, DC, 1990, figure 2.

functionally dependent in one or more ADL or IADL activities. Thus, roughly 8 million elderly (including institutionalized) were functionally dependent in the mid-1980's. If Hing and Bloom had excluded doing heavy housework from their list of IADL's, their estimate of noninstitutionalized elderly who were functionally dependent would have been 5.5 million.⁵⁴

Functional Limitations Are More Prevalent Among Women Than Men and Increase With Age

Data from the Supplement on Aging to the 1984 National Health Interview Survey (SOA)⁵⁵ show that elderly women are more likely than men to have difficulty because of a health or physical problem with most of the activities shown in table 3-9.

Hing and Bloom used definitions of functional dependency unique to their report to come to the same conclusions about patterns. In their study, one-third (34 percent) of elderly women were functionally dependent compared with one-fifth (22 percent) of elderly men. They found that functionally dependent elderly males

⁵⁴Hing and Bloom, op.cit., pg. 16.

⁵⁵J.P. Fulton, S. Katz, S.S. Jack, and G.E. Henderson, National Center for Health Statistics, *Physical Functioning of the Aged, United States, 1984*, Vital and Health Statistics, Series 10, No. 167, Hyattsville, MD: Public Health Service, March 1989.

(61 percent) were more likely to live with a spouse than their female counterparts (24 percent). The gender differential in likelihood of living with a spouse increased with age, partly because married men tend to die before their wives. By age 85, 36 percent of functionally dependent men lived with their spouse compared with only 4 percent of their female counterparts. Functionally dependent women aged 65 to 84 were most likely to live alone (38 percent). Among oldest old women, however, 30 percent lived with someone other than a spouse and 38 percent lived in a nursing home.⁵⁶

Functional dependency increases with age. In the Hing and Bloom study, functional dependency increased from 20 percent of persons aged 65 to 74 to 66 percent of persons aged 85 years and over (includes nursing home residents). The SOA also found the proportion with difficulty increases greatly after the mid-80's.

Elderly Blacks Have Higher Rates of Functional Limitations Than Elderly Whites

Regardless of race or sex, functional limitations increase with age, but at

⁵⁶Hing and Bloom, op.cit., pp. 6-7, Table 5. Estimates are based on data collected in the Supplement on Aging to the 1984 National Health Interview Survey and the 1985 National Nursing Home Survey. See report for definitions of functional dependency.

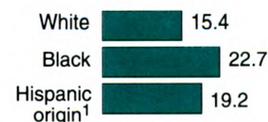
a different rate among groups. Data (reported in 90-percent confidence intervals) from the 1984 Survey of Income and Program Participation (SIPP) show the rate of functional limitation was higher among elderly Blacks than Whites. Among the population 65 years and over, 74 to 84 percent of Black women had one or more limitations compared with 62 to 76 percent of Black men, 58 to 62 percent of White women, and 50 to 54 percent of White men (the intervals are statistically different from each other). The limitations were more likely to be severe among elderly Black women as half (49 percent) had limitations that were severe compared with 30 percent of Black men and White women (31.7 percent) and one-fifth (21.2 percent) of White men.⁵⁷

Data reported by Hing and Bloom also showed that elderly Blacks (36 percent) were more likely than elderly Whites (28 percent) to be functionally

⁵⁷J.M. McNeil and E.J. Lamas, U.S. Bureau of the Census, *Disability, Functional Limitation, and Health Insurance Coverage: 1984/85*, Current Population Reports, Series P-70, No. 8, U.S. Government Printing Office, Washington, DC, 1986, table B.

Figure 3-8.
**Percentage of Persons
 65 Years and Over Needing
 Assistance With Everyday
 Activities, by Race and
 Hispanic Origin: 1986**

(Civilian noninstitutional population)



¹Hispanic origin may be of any race.

Source: U.S. Bureau of the Census, *The Need for Personal Assistance With Everyday Activities: Recipients and Caregivers*, Current Population Reports, Series P-70, No. 19. U.S. Government Printing Office, Washington, DC, 1990, table B.

Table 3-9.
Functional Limitations of Persons 65 Years and Over: 1984
(In thousands. Civilian noninstitutional population)

Functional limitation	Age								Living alone	Living with others
	Persons 65 years and over	65 to 74 years			75 to 84 years			85 years and over		
		Total	Male	Female	Total	Male	Female			
Total, 65 years and over . . .	26,433	16,288	7,075	9,213	8,249	3,128	5,121	1,897	8,397	18,036
Percent with difficulty¹										
Walking	18.7	14.2	12.9	15.1	22.9	18.3	25.7	39.9	20.4	17.9
Getting outside	9.6	5.6	4.5	6.5	12.3	7.5	15.3	31.3	9.7	9.5
Bathing or showering	9.8	6.4	5.7	6.9	12.3	9.2	14.2	27.9	9.9	9.7
Transferring ²	8.0	6.1	4.8	7.0	9.2	6.0	11.2	19.3	8.8	7.6
Dressing	6.2	4.3	4.4	4.2	7.6	7.3	7.7	16.6	5.0	6.8
Using toilet	4.3	2.6	2.4	2.7	5.4	3.6	6.5	14.1	3.4	4.7
Eating	1.8	1.2	1.5	0.9	2.5	2.5	2.4	4.4	1.2	2.1
Preparing meals	7.1	4.0	3.0	4.8	8.8	6.0	10.5	26.1	6.0	7.6
Shopping for personal items . .	11.3	6.4	4.6	7.8	15.0	9.6	18.4	37.0	11.9	11.0
Managing money	5.1	2.2	2.8	1.8	6.3	5.4	6.8	24.0	4.0	5.5
Using the telephone	4.8	2.7	3.5	2.0	6.0	7.9	4.8	17.5	2.6	5.8
Doing heavy housework	23.8	18.6	11.2	24.3	28.7	15.9	36.4	47.8	28.0	21.9
Doing light housework	7.1	4.3	3.5	5.0	8.9	6.2	10.5	23.6	6.6	7.4
Percent not performing activity										
Preparing meals	5.2	4.6	9.8	0.5	5.5	12.0	1.6	8.9	1.1	7.1
Shopping for personal items . .	2.0	1.1	1.9	0.5	2.5	2.9	2.3	7.5	2.2	1.9
Managing money	1.9	1.3	1.6	1.1	2.2	2.1	2.2	5.9	0.8	2.4
Using the telephone	0.8	0.5	0.8	0.3	0.9	1.4	0.6	2.1	0.8	0.7
Doing heavy housework	9.7	8.1	12.7	4.6	11.5	16.3	8.6	15.9	7.1	11.0
Doing light housework	3.5	2.8	6.1	0.3	4.0	7.8	1.7	7.1	0.7	4.8
Percent of total receiving help³										
Walking	4.7	2.9	2.8	2.9	5.7	3.7	6.9	15.3	2.4	5.7
Getting outside	5.3	2.7	2.2	3.1	6.9	3.7	8.8	21.2	4.1	5.9
Bathing or showering	6.0	3.3	3.3	3.3	7.7	6.6	8.4	21.0	3.6	7.0
Transferring ²	2.8	1.8	1.7	1.8	3.6	2.7	4.1	9.0	1.0	3.7
Dressing	4.3	2.9	3.3	2.7	5.1	5.7	4.7	13.3	1.7	5.6
Using toilet	2.2	1.2	1.4	1.1	2.9	2.3	3.2	8.2	0.7	3.0
Eating	1.1	0.6	0.9	0.5	1.5	1.8	1.4	2.7	0.3	1.4
Preparing meals	6.0	3.3	2.8	3.7	7.1	5.4	8.2	23.7	3.6	7.0
Shopping for personal items . .	10.5	5.8	4.3	6.9	14.1	8.9	17.2	35.9	10.4	10.6
Managing money	4.8	2.1	2.6	1.7	5.8	5.0	6.3	23.5	3.6	5.3
Using the telephone	3.0	1.5	2.0	1.1	3.9	5.0	3.2	11.7	0.9	3.9
Doing heavy housework	19.3	14.5	9.3	18.5	23.1	12.7	29.4	44.1	20.1	18.9
Doing light housework	6.2	3.6	3.2	4.0	7.6	5.7	8.7	21.6	4.5	6.9
Percent of those with difficulty¹ receiving help³										
Walking	24.8	20.4	21.8	19.4	24.9	20.2	26.9	38.3	11.8	31.7
Getting outside	55.8	48.0	49.4	47.3	55.7	49.4	57.5	68.0	42.0	62.4
Bathing or showering	60.9	51.9	58.4	47.9	62.6	71.6	59.1	75.1	36.5	72.5

¹Difficulty due to a health or physical problem.

²Getting in or out of a bed or chair.

³Receiving help due to a health-related problem with the specified difficulty.

Source: U.S. National Center for Health Statistics, *Aging in the Eighties: Functional Limitations of Individuals Age 65 Years and Over*, June 1987, and unpublished data from the Supplement on Aging to the 1984 National Health Interview Survey.

dependent. The higher percentage of functional dependency among Blacks was because of their greater representation in the mildly impaired categories. In the Hing and Bloom study, the proportion of elderly Blacks and Whites who were severely impaired were statistically similar. They found that functionally dependent Blacks (30 percent) were more likely than their White counterparts (18 percent) to live with someone other than their spouse. Whites were more likely to live in a nursing home, however (17 percent compared with 10 percent of Blacks).⁵⁸

⁵⁸Hing and Bloom, op.cit., pp. 6-7.

Functional Limitations Are Highest Among Those With Relatively Low Incomes

The 1984/1985 SIPP showed an inverse relationship between the level of household income and functional limitation status as shown in table 3-10 in 90-percent confidence intervals. Among Black women aged 65 to 74, from 65 to 80 percent of those with a limitation had monthly household incomes below \$900 compared with 33 to 62 percent of those with no limitations. The limitation levels were much lower for those with monthly incomes of \$2,000 or more (the income difference was not statistically significant between those with and without functional limitations at this income level).

Table 3-10 is also illustrative of the differences between Whites and Blacks within the same age and income categories. Of those who had one or more limitations, about one in four White men had monthly incomes below \$900 compared with about 7 in 10 Black women. White women and Black men were in between the two extremes.

Women Have More Years Of Expected Dependency Than Men

Active life expectancy, a term coined by Katz, et.al.⁵⁹, refers to the expected years of physical, emotional, and intellectual vigor or functional well

⁵⁹Sidney Katz, et.al., "Active Life Expectancy," *The New England Journal of Medicine*, November 17, 1983, pp. 1218-1224.

Table 3-10.
Functional Limitations Status of Noninstitutionalized Persons
65 to 74 Years, by Monthly Household Income, Sex, and Race: 1984
(In thousands. Percents in 90-percent confidence intervals.)

Functional limitations status	Total, with income	Monthly income		
		Less than \$900	\$900 to \$1,999	\$2,000 or more
Total	16,306	28.0 to 31.2	41.4 to 45.0	25.6 to 28.8
Black males	554	32.7 to 50.9	34.9 to 53.3	7.7 to 20.5
White males¹	6,519	16.0 to 20.4	45.2 to 50.8	30.6 to 35.8
Black females	828	58.2 to 72.6	20.9 to 34.5	3.1 to 10.7
White females¹	8,405	31.4 to 36.0	38.4 to 43.2	23.3 to 27.7
No limitations	8,176	18.8 to 22.8	38.4 to 43.2	31.2 to 36.0
Black males	207	17.5 to 45.5	35.1 to 65.3	6.6 to 30.0
White males¹	3,564	10.4 to 15.6	44.3 to 51.9	35.2 to 42.6
Black females	233	33.1 to 61.5	24.7 to 52.3	4.3 to 24.3
White females¹	4,172	22.4 to 28.6	40.0 to 47.0	27.7 to 34.1
One or more limitations ...	8,130	36.0 to 40.8	38.3 to 43.4	18.8 to 22.8
Black males	347	36.4 to 59.6	29.0 to 51.8	4.2 to 19.2
White males¹	2,955	21.9 to 29.1	43.9 to 52.3	22.6 to 30.0
Black females	595	64.6 to 80.4	16.0 to 31.0	0.5 to 7.5
White females¹	4,233	38.5 to 45.3	34.8 to 41.6	17.2 to 22.8

¹Data are for all races other than Black.

Source: U.S. Bureau of the Census, 1984 Survey of Income and Program Participation, Health-Wealth File, waves 3 and 4 (tabulations produced by Arnold Goldstein, Population Division).

being. This concept uses the loss of independence in the activities of daily living (ADL's) as the end of active life expectancy. Katz used life table techniques to define expected duration of such independence. In their 1974 study of noninstitutionalized elderly in Massachusetts, Katz et.al. found that active life expectancy was about 10 years for those aged 65 to 70 years and then decreased to about 3 years for those 85 or older. Active life expectancy was shorter for the poor than for the nonpoor by 2.4 years for the 65-to-69 group and by less than 1 year for those 75 years and older. While men had a shorter life expectancy, surviving men had a greater percentage of remaining years of independent life than women in all age groups. Because of the longer life expectancy of women, the duration of dependency was longer for elderly women than for men.

Work Disabilities

A Significant Minority of Young Old Have Disabilities That Prevent Working

To address the long-term financial outlook of the Social Security system, retirement age is being raised gradually to keep pension plans and the Social Security system solvent.⁶⁰ As reported in the 1984 SIPP, a significant minority of all persons aged 65 to 72 had disabilities that prevented them from working (table 3-11, shown in 90-percent confidence intervals). The proportion of Blacks with a work disability was higher than for Whites. Interestingly, there were no gender differences within a race group. Many Blacks aged 65 to 72 had a work dis-

⁶⁰The 1983 Amendments to the Social Security Act included a gradual increase in the age of eligibility for full Social Security benefits from age 65 to age 66 in 2009 and to age 67 by 2027. Actuarially reduced benefits will continue to be available at age 62, but with a greater reduction than under previous law. See *Social Security Programs in the United States*, Social Security Bulletin, Volume 52, No. 7 (July 1989), pg. 9; *Actuarial Status of the OASI and DI Trust Funds*, Social Security Bulletin, Volume 52, No. 6 (June 1989), pp. 2-7.

ability which prevented them from working (the difference between Black men and Black women is not statistically significant). From 25 to 30 percent of White men and White women were prevented from working.

Retirement and Functional Limitations

Elderly With Work Limitations Are Rarely in The Labor Force

"Retirement" is a continuum of work input of persons who receive retire-

ment income (Social Security, public and private pensions). Work status differs by those who (1) were never in the labor force, (2) have left the labor force entirely, or (3) remain in the labor force, either full or part time (less than 35 hours per week), and either full year or part year (less than 50 weeks).

Only a small percentage of persons aged 65 to 69 with retirement income and functional limitations work (table 3-12) as reported in the 1984 SIPP.

Table 3-11.
Work Disability Status of Persons
65 to 72 Years, by Sex and Race: 1984
(In thousands. Percents in 90-percent confidence intervals)

Race and sex	Total number	Percent	
		With a work disability	Prevented from working
Black males	448	47.7 to 67.9	34.7 to 55.1
White males ¹	5,415	36.7 to 42.5	24.8 to 30.0
Black females	653	49.2 to 66.8	43.2 to 61.0
White females ¹	6,707	33.1 to 38.5	25.3 to 30.3

¹Data are for all races other than Black.

Source: U.S. Bureau of the Census, 1984 Survey of Income and Program Participation, Health-Wealth File, wave 3 (tabulations produced by Arnold Goldstein, Population Division).

Table 3-12.
Functional Limitations Status of Persons 65 to 69 Years
With Retirement Income, by Employment Status, Sex, and Race: 1984
(Percents in 90-percent confidence intervals)

Functional limitations status	Did not work	Worked
Black		
No limitations	19.1 to 34.7	3.6 to 13.4
One or more limitations	51.8 to 69.0	0.7 to 7.7
One or more severe limitations	24.0 to 40.6	—
White¹		
No limitations	41.5 to 46.7	7.0 to 10.0
One or more limitations	37.4 to 42.6	3.7 to 5.9
One or more severe limitations	15.3 to 19.3	0.6 to 1.6

Note: Percentage of age/race group based on 603,000 Blacks and 7,404,000 Whites

— Indicates zero sample cases.

¹Data are for all races other than Black.

Source: U.S. Bureau of the Census, 1984 Survey of Income and Program Participation, Health-Wealth File, waves 3 and 4 (tabulations produced by Arnold Goldstein, Population Division).

Among those who received retirement income, less than one in twelve worked if they also had a functional limitation (not a statistically significant difference between Whites and Blacks). Less than 2 percent of Whites worked if they had retirement income and a severe limitation; there were no sample cases of Blacks in this category. Research by Belgrave and Haug indicates that older Black women are more likely to work than are others when they have functional limitations perhaps because of their limited economic resources.⁶¹

Health Insurance Coverage

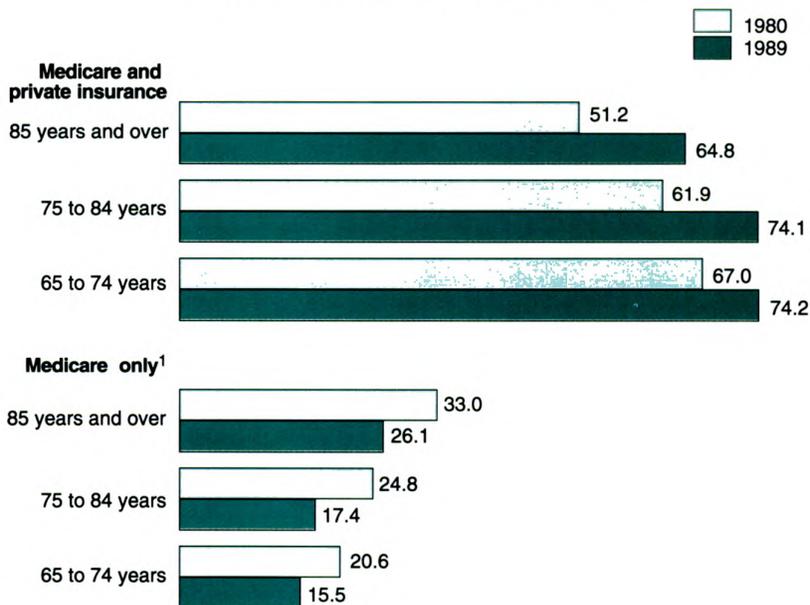
Nearly All Elderly Covered by Medicare

Health care coverage is available to nearly all elderly through Medicare. The National Center for Health Statistics reports that in addition to Medicare, private insurance covered three-fourths (74.2 percent) of persons aged 65 to 84 in 1989 and about two-thirds (64.8 percent) of persons aged 85 years and over, an increase from 1980. The oldest old are more likely than those aged 65 to 84 years to be covered by Medicare only (figure 3-9).

Private insurance was held by three-fourths (74.9 percent) of elderly non-Hispanic Whites as compared with about half of elderly Asians (46.9 percent) and one-third of elderly non-Hispanic Blacks (35.5 percent), Cubans (29.8 percent), and Mexican Americans (35.7 percent). Only one-fifth (20.4 percent) of elderly Puerto Ricans had private insurance. Medicare was less likely to be the sole source of insurance for non-Hispanic Whites and Cuban elderly than for non-Hispanic Blacks, Mexican, and Puerto Rican elderly. For American

⁶¹Linda L. Belgrave, Marie R. Haug, and Francisco-Xavier Gomez-Bellenge, "Gender and Race Differences in Effects of Health and Pensions on Retirement Before 65," research supported by the National Institute on Aging, pp. 8, 9, 12, Table 1.

Figure 3-9.
Health Care Coverage for Persons 65 Years and Over, by Type of Coverage: 1980 and 1989
(In percent. Civilian noninstitutional population)



¹Includes persons covered by Champus and public assistance. Does not include persons covered by Medicaid.

Source: National Center for Health Statistics, *Health United States, 1990*, Hyattsville, MD: Public Health Service, 1991, Table 125.

Indians who lived in areas served by the Indian Health Service, 55 percent were covered for health care solely by the Indian Health Service, 28 percent had private coverage in addition to the IHS, and 11 percent were also covered by Medicaid.⁶²

Functional limitations and severe limitations, were more likely among those elderly not covered by private insurance than among the covered (table 3-13).

⁶²National Center for Health Statistics, *Health United States, 1990*, op.cit., pp. 34 and 44. Percents are age-adjusted annual averages from the 1983, 1984, and 1986 National Health Interview Survey.

Implications of Health Status for Long-Term Care

Multiple Impairments Lead to Institutionalization

The increasing size of the oldest old population, and their health situation, which clearly declines with increasing age, suggests that a larger number will seek long-term care as part of the continuum from independent living, to assisted living at home, to institutional care. Hing and Bloom found that the elderly with mild impairments were highly likely to live in the community. Elderly with three or more impairments were still likely to live in the community but were much more likely than the mildly impaired to live in a

Table 3-13.
**Private Health Insurance Coverage of
 Persons 65 Years and Over: 1984**
 (In thousands)

Functional limitation	Covered	Not covered
Total, 65 years and over	19,221	7,202
With a functional limitation	10,401	5,064
Percent	54.1	70.3
With a severe functional limitation	4,607	2,932
Percent	24.0	40.7

Source: John M. McNeil and Enrique J. Lamas, U.S. Bureau of the Census, *Disability, Functional Limitation, and Health Insurance Coverage: 1984-1985*, Current Population Reports, Series P-70, No. 8. U.S. Government Printing Office, Washington, DC, December 1986, table C.

nursing home. Three in five elderly with five or more impairments lived in nursing homes and rarely lived alone (5 percent).⁶³

The number of elderly requiring services for nonfatal, functional disabilities can be expected to increase unless there are medical revolutions on several fronts. It is not clear whether the percentage of the oldest old population that requires care will increase. Much turns on whether medical technology can increase active life expectancy among the oldest old as well as increase the length of life. The availability of care that is intermediate between complete independence in the home and the dependence of a nursing home also appears to be a factor. In 1964, 4 in 10 nursing home residents were aged 75 to 84 and 3 in 10 were 85 or older. In 1985, those proportions were reversed so that 4 in 10 were 85 or older.⁶⁴ That comes from both a decreased probability of dependency among the younger old and increased opportunities for help

⁶³The literature on the link between functional dependency and the increased use of long-term care services is reviewed in Hing and Bloom, *op.cit.*, pg. 1. Also see table B (pg. 8) for the distribution of functionally dependent persons by living arrangements.

⁶⁴National Center for Health Statistics, *Health United States, 1990*, *op.cit.*, Table 116 (pg. 197).

in the home that delay movement into a nursing home.

Men tend to develop diseases that kill while women are more likely to have chronic disabling diseases.⁶⁵ This has significance for differences between men and women in the nature and duration of long-term care. This difference is also significant in the discussion by ethicist, Daniel Callahan, on setting medical goals in an aging society.⁶⁶

Health-Care Expenditures

An Increased Proportion of Public Health-Care Dollars Go to the Elderly

Nearly 3 of 5 (57.9 percent) public health-care dollars were spent in 1987 for the elderly, up from one-half (50.7 percent) in 1977, according to the Health Care Financing Administration (HCFA). In both 1987 and 1977, public expenditures for personal health care were about 17 times greater for

⁶⁵Lois M. Verbrugge, "A Health Profile of Older Women With Comparisons to Older Men," *Research on Aging*, Vol. 6, No. 3 (September 1984), pg. 314; National Center for Health Statistics, *Sex Differences in Health and Use of Medical Care, United States, 1979*, Vital and Health Statistics, Series 3, No. 24, U.S. Government Printing Office, Washington, DC, 1983, pg. 7.

⁶⁶Daniel Callahan, *Setting Limits: Medical Goals in an Aging Society*, New York: Simon and Schuster, 1987.

the elderly than for children and youth under 19 (table 3-14). Since 1977, per capita public expenditures on personal health care have increased 144 percent (using constant 1987 dollars).

Personal health-care expenditures ranged in 1987 from \$3,700 for persons 65 to 69 years old to nearly \$9,200 for persons 85 years and older. Public funds pay about three-fifths of the bill for both age groups (table 3-15). Hospitalization accounts for most of the bill. The services of physicians are the next most costly component for the elderly except for persons 80 years and over. For them, the cost of nursing homes takes second place.

HCFA reports that \$40 billion were spent on nursing home care in 1987. Half of that came from the government (mostly Medicaid) and most of the other half from the out-of-pocket expenses of individuals. Private health insurance paid for one percent of nursing home costs. Average monthly charges in 1985 (the last year for which data are available) were nearly \$1,500. There is considerable variation in costs among the various types of nursing homes, however. Skilled nursing facilities cost the most, about \$1,900 a month. Facilities that were not certified cost under \$900 a month.⁶⁷

In 1988, annual Medicare payments per person served ranged from \$2,300 for persons aged 65 to 66 to \$3,900 for persons 85 years or older. Average payments per person in 1988 for elderly Whites was \$3,100 compared with \$3,600 for persons of other races. Fewer elderly men than women were enrolled in Medicare

⁶⁷National Center for Health Statistics, *Health United States, 1990*, Hyattsville, MD: Public Health Service, 1991, Table 114 (pg. 195) and Table 116 (pg. 197).

(12.0 million and 17.9 million respectively) and fewer men than women were served (the number served per 1,000 enrollees was 724 for men and 797 for women). When men 65 or older used Medicare, the payments per person served averaged higher (\$3,600) than for elderly women (\$2,900). The gender difference

in Medicare payments per elderly enrollee was less, however: \$2,600 for men and \$2,300 for women.⁶⁸

The elderly represented only 13 percent of Medicaid recipients (3.1 million elderly) in 1989 but received one-third

of the total Medicaid budget. The vendor payments for the elderly were \$18.6 billion, about \$5,900 per recipient.⁶⁹

⁶⁸National Center for Health Statistics, *Health United States, 1990*, op.cit., Table 128 (pg. 212).

⁶⁹National Center for Health Statistics, *Health United States, 1990*, op.cit., Table 130 (pg. 214).

Table 3-14.
Personal Health-Care Expenditures, by Age: 1977 and 1987

Age and type of expenditure	Aggregate amount (billions)			Per capita amount		
	1987	1977	1977 ¹	1987	1977	1977 ¹
Total Expenditures						
All ages	\$447.0	\$150.3	\$281.9	\$1,776.0	\$658.0	\$1,234.1
Under 19 years	\$51.9	\$19.5	\$36.6	\$745.0	\$269.0	\$504.5
19 to 64 years	\$233.1	\$85.6	\$160.5	\$1,535.0	\$851.0	\$1,220.9
65 years and over	\$162.0	\$45.2	\$84.8	\$5,360.0	\$1,856.0	\$3,480.9
Private Expenditures						
All ages	\$271.8	\$92.6	\$173.7	\$1,079.0	\$405.0	\$759.6
Under 19 years	\$36.1	\$14.4	\$27.0	\$547.0	\$198.0	\$371.3
19 to 64 years	\$173.0	\$62.3	\$116.8	\$1,139.0	\$474.0	\$889.0
65 years and over	\$60.6	\$15.9	\$29.8	\$2,004.0	\$653.0	\$1,224.7
Public Expenditures						
All ages	\$175.3	\$57.8	\$108.4	\$696.0	\$253.0	\$474.5
Under 19	\$13.8	\$5.2	\$9.8	\$198.0	\$711.0	\$133.2
19 to 64 years	\$60.0	\$23.2	\$43.5	\$395.0	\$177.0	\$332.0
65 years and over	\$101.5	\$29.3	\$55.0	\$3,356.0	\$1,204.0	\$2,258.1

¹1977 in 1987 constant dollars.

Source: Health Care Financing Administration, Office of the Actuary, data from the Office of National Cost Estimates.

Table 3-15.
**Per Capita Personal Health-Care Expenditures
 for Persons 65 Years and Over, by Age: 1987**

Age and source of care	Total	Private	Public
65 Years and Over			
Total	\$5,360	\$2,004	\$3,356
Hospital care	\$2,248	\$333	\$1,915
Physicians' services	\$1,107	\$393	\$714
Nursing home care	\$1,085	\$634	\$451
Other personal care	\$920	\$644	\$276
65 to 69 Years			
Total	\$3,728	\$1,430	\$2,298
Hospital care	\$1,682	\$312	\$1,370
Physicians' services	\$974	\$380	\$594
Nursing home care	\$165	\$94	\$71
Other personal care	\$907	\$644	\$263
70 to 74 Years			
Total	\$4,424	\$1,564	\$2,860
Hospital care	\$2,062	\$327	\$1,735
Physicians' services	\$1,086	\$389	\$697
Nursing home care	\$360	\$205	\$155
Other personal care	\$916	\$644	\$262
75 to 79 Years			
Total	\$5,455	\$1,843	\$3,612
Hospital care	\$2,536	\$341	\$2,195
Physicians' services	\$1,191	\$398	\$793
Nursing home care	\$802	\$461	\$341
Other personal care	\$925	\$644	\$281
80 to 84 Years			
Total	\$6,717	\$2,333	\$4,384
Hospital care	\$2,935	\$355	\$2,580
Physicians' services	\$1,246	\$407	\$839
Nursing home care	\$1,603	\$927	\$676
Other personal care	\$934	\$644	\$290
85 Years and Over			
Total	\$9,178	\$3,631	\$5,547
Hospital care	\$3,231	\$376	\$2,855
Physicians' services	\$1,262	\$420	\$842
Nursing home care	\$3,738	\$2,191	\$1,547
Other personal care	\$947	\$645	\$302

Source: Health Care Financing Administration, Office of the Actuary, data from the Office of National Cost Estimates.

Chapter 4. Economic Characteristics

This section will examine the trends in work and retirement of the older population as well as the great diversity in economic status among America's elderly.

Work and Retirement

Few elderly are in the labor force. Only 16 percent of elderly men and 9 percent of elderly women were labor force participants in 1990. More and more, older men are retiring early, that is, before the age when they can receive full retirement benefits. Women in their late fifties, however, were more likely to be labor force participants than in past years. We will describe such trends in more detail below.

Labor Force Participation Trends

More and More, Older Men Are Retiring Early.

Older men are less likely to be in the labor force today than was true four decades ago (figure 4-1). In 1950, two-thirds (68.6 percent) of men 55 and older, and nearly half (45.8 percent) of men 65 and older were in the labor force. In 1990, about 2 in 5 (39.3 percent) men 55 and over, and about 1 in 6 (16.4 percent) elderly men were in the labor force. The change is significant even among men aged 55 to 59. In 1967, 90.1 percent of men that age were in the labor force compared with 79.8 percent in 1990.⁷⁰

Among older men, 1990 labor force participation rates decreased rapidly with age: from 80 percent for men aged 55 to 59, to 26 percent for men aged 65 to 69, and 7 percent for men aged 75 years and over. The rates

are lower for older Black men than for older White men (detailed table 8-2).

The Bureau of Labor Statistics (BLS) projects that labor force participation of men aged 55 to 59 and 60 to 64 will continue to decline through 2005, as they have in the past, but at a slower rate. Men aged 65 to 69 and 70 to 74, however, experienced small increases in their labor force participation rates from 1985 to 1990. BLS projects a continuation of this pattern through 2005 (table 4-1).

As a result of early retirement and increased life expectancy, pensions, savings, and Social Security are spread over a longer period than in the past for many retirees. Men who are 55 years old would, on average, live about 21 additional years according to a statistical model developed by Hayward and Grady. During those years, they would spend, on average, nearly 9 additional years in the labor force, 12 years in retirement, and just under 1 year with disability.⁷¹

⁷¹Mark D. Hayward and William R. Grady, *The Worklife Patterns of a Cohort of Older Men in the U.S., 1966-1983*, unpublished paper presented at the 1989 Annual Meetings of the Population Association of America. The National Longitudinal Survey of Mature Males (NLS) is used to estimate the working life tables.

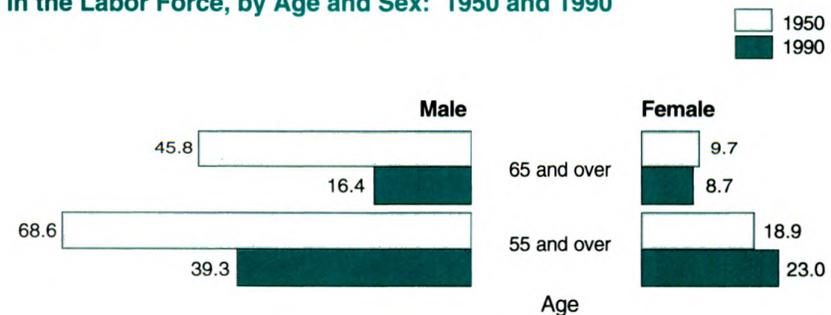
Women in Their Fifties Are More Likely to Participate in the Labor Force Now Than in the Past.

Women 50 years and over grew up in an age when society did not encourage or expect married women to work outside the home. They have been less likely to be in the labor force at every age than is true of younger cohorts. For example, three-fourths of women (74.4 percent) in their thirties were in the labor force in 1990, double the percent three decades earlier (38.2 percent in 1957).⁷²

Older women, as a group, have participated in the labor force less than younger women and they also participate less than older men. But just as with men, the 1990 rates of older women dropped rapidly with age: from 55 percent for women aged 55 to 59, to 17 percent for women aged 65 to 69, and 3 percent for women aged 75 and over. There is no meaningful difference in the rates for older White and Black women except for those aged 55 to 59. For that age group, the labor force participation rate for Black women was 52

⁷²Herz, op.cit., pg. 4; Bureau of Labor Statistics, *Employment and Earnings*, January 1991, Table 3.

Figure 4-1.
Percentage of Civilian Noninstitutional Population in the Labor Force, by Age and Sex: 1950 and 1990



Source: U.S. Bureau of Labor Statistics, Data for 1990, *Employment and Earnings*, Vol. 38, No.1, January 1991, Table 3; data for 1950, unpublished tabulations from 1950 Current Population Survey, available from the Bureau of Labor Statistics.

⁷⁰For 1967 data, see Diane E. Herz, Bureau of Labor Statistics, *Employment Characteristics of Older Women, 1987*, Monthly Labor Review, September 1988, Table 1, p. 4.

percent compared with 56 percent for White women (detailed table 8-2).

Women have become a larger share of the older work force, partly because so many men are leaving the labor force at earlier ages. Additionally, more women have long-term experience in the labor force and so we expect this trend to continue. The female share of the older (55 years and older) work force increased from 23 percent in 1950 to 43 percent of all older workers in 1990 (2.4 million women aged 55 or older in the civilian labor force in 1950 compared with 6.6 million in 1990).

While older men have decreased their level of participation, it is growth in the participation of women in their fifties that is noticeable. In 1950, only 27 percent of women aged 55 to 64 were in the labor force compared with 1990 when 45 percent were labor force participants. Within that age group, more detailed data (not available in 1950) shows us that the real growth in labor force participation is among women aged 55 to 59. In 1967, 48 percent of women aged 55 to 59 worked in the paid labor market; by 1990, 55 percent did. For women aged 60 to 64, there was no difference (a participation rate of 35 percent in both 1967 and 1990).⁷³

For women 65 years and over, labor force participation rates have remained at a low level for decades (for example, 9.7 percent in 1950; 9.6 percent in 1967; 8.7 percent in

⁷³Bureau of Labor Statistics, *Employment and Earnings*, January 1991, Table 3. Data for 1950 from the Bureau of Labor Statistics, unpublished annual averages from the 1950 Current Population Survey. Also see: U.S. Department of Labor, *Employment and Training Report of the President*, sent to Congress in 1981, Table A-3; Herz, op cit., Table 1, pg. 4; N.B. Turma and G.D. Sandefur, "Trends in the Labor Force Activity of the Aged of the United States, 1940-1980," unpublished paper, May 1987.

Table 4-1.

Percent Change in Labor Force Participation of Men 55 Years and Over, by Age: 1970 to 2005

Period	55 years and over	55 to 59 years	60 to 64 years	65 to 69 years	70 to 74 years
Historical					
1970 to 1975	-6.4	-5.1	-9.5	-9.9	-5.9
1975 to 1980	-3.7	-2.7	-4.7	-3.2	-2.9
1980 to 1985	-4.6	-2.1	-5.2	-4.1	-3.3
1985 to 1990	-1.7	0.2	-0.1	1.6	0.6
Projected					
1990 to 1995	-0.9	-0.3	-0.8	0.6	0.0
1995 to 2000	1.2	-0.3	-0.5	0.7	0.2
2000 to 2005	2.2	-0.4	-0.9	0.6	0.1

Source: Howard Fullerton, Jr., Bureau of Labor Statistics, "Labor Force Projections: The Baby Boom Moves On," *Monthly Labor Review*, Vol 114, No. 11 (November 1991), pp. 37-38.

1990. The differences between the 1950 and 1967 rates are not statistically different).⁷⁴ As they age, elderly women who do work often reduce the length of their work week and the number of weeks they work in a year. More than half (56.1 percent) of women aged 55 to 61 with work experience in 1987 worked full time (35 hours or more per week) and year round (50 to 52 weeks) compared with only one-fourth (25.3 percent) of women 65 years and over who worked such schedules.⁷⁵

Oldest Old Are Unlikely to Be in the Labor Force.

The numbers for the oldest workers, those 80 years and over, are so small that surveys do not provide meaningful statistics and we must turn to decennial censuses for a picture (table 4-2). Data are not yet available from the 1990 census but the trend from 1950 to 1980 is clear. Among men aged 65 to 69, 29 percent were in the

⁷⁴*Ibid.*

⁷⁵U.S. Bureau of Labor Statistics, Division of Labor Force Statistics, unpublished tabulations from the Work Experience package, Table 1.

labor force in 1980 compared with 60 percent in 1950. After that age, participation declines rapidly so that only 10 percent of men aged 80 to 84 and 7 percent aged 85 and over were still in the labor force in 1980 (about the same as in 1950). According to the 1980 decennial census, White, Black, and Hispanic origin men 80 years and over had similar rates of participation.

Occupations of Older Workers

Elderly Women in the Labor Force Tend to Work in Predominantly Female Occupations.

When compared with the distribution of occupations of all workers, fewer of America's elderly workers are in blue-collar occupations and more are in service occupations. The proportion of elderly in white-collar occupations (53.8 percent) is statistically but not practically different from the proportion in the total labor force (55.6 percent).⁷⁶

Most older (and younger) women still work in occupations traditionally held

⁷⁶Bureau of Labor Statistics, unpublished tabulations from the 1986 Current Population Survey.

Table 4-2.
**Labor Force Participation Rates of Persons 50 Years and Over, by Age, Sex,
 Race, and Hispanic Origin: 1950 to 1980**

Age and sex	1950	1960	1970	1980 ¹	Age and sex	1950	1960	1970	1980 ¹
TOTAL					BLACK²				
Male					Male				
50 to 54 years	90.6	92.2	91.4	88.5	50 to 54 years	86.9	86.0	83.7	78.3
55 to 59 years	86.7	87.7	86.8	80.6	55 to 59 years	82.9	80.8	77.9	69.4
60 to 64 years	79.4	77.6	73.0	60.4	60 to 64 years	76.0	68.9	65.9	53.7
65 to 69 years	59.8	43.8	39.0	29.2	65 to 69 years	58.1	40.6	35.4	26.1
70 to 74 years	38.7	28.7	22.4	18.3	70 to 74 years	40.2	27.3	19.6	16.3
75 to 79 years	24.2	19.5	14.2	16.7	75 to 79 years	27.6	19.2	13.0	13.7
80 to 84 years	13.2	11.5	9.1	10.4	80 to 84 years	16.7	12.1	9.7	8.8
85 years and over	6.9	7.0	(*)	6.6	85 years and over	9.8	8.0	(*)	6.6
Female					Female				
50 to 54 years	30.8	45.8	52.0	56.3	50 to 54 years	40.9	52.5	56.5	58.4
55 to 59 years	25.9	39.7	47.4	48.4	55 to 59 years	34.9	44.7	50.2	50.2
60 to 64 years	20.5	29.5	36.1	34.0	60 to 64 years	27.6	34.1	38.8	36.9
65 to 69 years	12.8	16.6	17.2	15.0	65 to 69 years	16.4	19.5	19.4	16.9
70 to 74 years	6.6	9.6	9.1	7.8	70 to 74 years	8.4	11.5	11.6	9.3
75 to 79 years	3.5	5.6	5.5	6.1	75 to 79 years	5.1	7.0	7.5	6.9
80 to 84 years	1.7	3.0	3.5	3.7	80 to 84 years	2.4	4.0	5.7	4.2
85 years and over	1.2	2.0	(*)	2.5	85 years and over	2.1	3.1	(*)	3.2
WHITE					HISPANIC ORIGIN³				
Male					Male				
50 to 54 years	91.0	92.8	92.2	89.6	50 to 54 years	(NA)	(NA)	88.6	86.5
55 to 59 years	87.0	88.5	87.6	81.8	55 to 59 years	(NA)	(NA)	84.1	78.8
60 to 64 years	79.7	78.4	73.7	61.0	60 to 64 years	(NA)	(NA)	70.3	62.6
65 to 69 years	60.0	44.1	39.3	29.5	65 to 69 years	(NA)	(NA)	36.8	31.7
70 to 74 years	38.6	28.8	22.7	18.5	70 to 74 years	(NA)	(NA)	19.7	18.7
75 to 79 years	23.9	19.6	14.3	17.0	75 to 79 years	(NA)	(NA)	13.6	13.9
80 to 84 years	12.9	11.5	9.0	10.5	80 to 84 years	(NA)	(NA)	8.5	9.6
85 years and over	6.6	6.9	(*)	6.6	85 years and over	(NA)	(NA)	(*)	6.8
Female					Female				
50 to 54 years	29.8	45.1	51.5	56.1	50 to 54 years	(NA)	(NA)	42.0	50.5
55 to 59 years	25.2	39.1	47.1	48.2	55 to 59 years	(NA)	(NA)	34.7	42.4
60 to 64 years	20.0	29.1	35.9	33.8	60 to 64 years	(NA)	(NA)	24.3	30.3
65 to 69 years	12.5	16.3	17.0	14.8	65 to 69 years	(NA)	(NA)	11.2	12.3
70 to 74 years	6.5	9.4	8.9	7.7	70 to 74 years	(NA)	(NA)	6.3	6.9
75 to 79 years	3.4	5.5	5.3	6.0	75 to 79 years	(NA)	(NA)	5.0	4.2
80 to 84 years	1.6	3.0	3.4	3.6	80 to 84 years	(NA)	(NA)	3.6	3.0
85 years and over	1.2	1.9	(*)	2.5	85 years and over	(NA)	(NA)	(*)	2.7

*Data for the population 85 and over in 1970 are not shown here because the count of persons 100 years and over was distorted by a problem with the design of the questionnaire.

NA Not available.

¹The figures for age groups 75 years and over are employment rates and do not include unemployed persons in the labor force.

²Data for 1950 and 1960 are shown for Nonwhite.

³Persons of Hispanic origin may be of any race.

Source: U.S. Bureau of the Census, Decennial censuses, 1950 to 1980; for 1980, detailed age data for population 75 years and over from special tabulations prepared for the National Institute on Aging (Summary Tape File 5A, table 18.)

predominantly by women.⁷⁷ In 1987, 2 in 3 working women 55 years and over held jobs in retail sales, administrative support (includes clerical), and services. Elderly women are particularly overrepresented in sales and service (especially private household) jobs. These jobs are more amenable to part-time work, less likely to have provided pension coverage when the women were younger, and less physically demanding.⁷⁸

Rones and Herz note that older women are probably at the greatest disadvantage in the labor market. They tend to have less work experience than men and less education than younger people.⁷⁹ In 1989, among women aged 55 or older, about 4 in 10 (38.9 percent) had not completed high school compared with 1 in 8 (12.6 percent) women aged 25 to 34. Two-thirds (66.9 percent) of Black women 55 years and older had less than a high school education. Only 10.1 percent of all women 55 or older had completed 4 or more years of college compared with 17.3 percent of older men and 23.5 percent of women aged 25 to 34.⁸⁰

White, Black, and Hispanic (may be of any race) women 55 years and over are nearly equally as likely to be in the labor force (respectively, 21.5, 24.7, and 22.2 percent in 1987), but Black and Hispanic women are more concentrated in relatively few

low-paying occupations.⁸¹ In 1987, for example, about half (49.3 percent) of employed Black women 55 to 64 years old and nearly one-third (31.1 percent) of Hispanic women that age worked in service occupations compared with 1 in 6 (15.9 percent) White women.⁸² Older Black women, compared with older White women, are less likely to receive a pension, to have completed high school, to own their homes or other valuable assets, or to be married; hence, they have fewer resources for retirement.⁸³ It is unlikely that the occupational differences between older Black and White women will be as pronounced in the future as now. This is because a high proportion of elderly Black women were employed in their younger years as service workers with low wages and few benefits. Young Black women are more likely to be employed in administrative support occupations, as laborers, and as professionals. Such jobs are much more likely to be covered by pensions and health insurance.⁸⁴

Occupations and Retirement

Retirement Patterns Differ Among Occupation Groups.

The occupations and work-life patterns of individuals have lifetime implications, including access to retirement. Research by Hayward and Grady shows that among older men, for example, operators, fabricators, or laborers are more likely to leave the labor force at age 55 than are professionals, managers, and men in sales. Self-employed workers have the longest working life expectancy compared with other classes of work-

ers even though they have the highest rates of disability expectancy. Hayward and Grady suggest that because the self-employed must achieve retirement income without the aid of employer contributions, the accumulation of savings to finance retirement is generally delayed to ages when health problems are likely to occur.⁸⁵

Occupation, social, and demographic factors affect the chances that an individual will re-enter the labor force after the first "retirement" as shown in the research of Hayward and Grady. For example, only 27 percent of workers in personal services industries and 32 percent in agriculture, forestry, and fisheries industries, were covered by pension plans in 1987.⁸⁶ Such persons were much more likely to re-enter the labor force than were workers in industries widely covered by pension plans. The low rates of re-entry among former workers in manufacturing industries may be indicative of extensive pension systems achieved through collective bargaining (health status and lack of opportunity may also be important).⁸⁷

Hayward and Grady found a strong positive association between educational attainment and total and working life expectancies. Their model shows little difference between Black and White men in terms of working life expectancy. Black men live fewer total years, have fewer years of retirement, and spend more time disabled. These differences persist even when factors such as occupation and class of worker⁸⁸ are

⁸⁵Hayward and Grady, op.cit., pp. 13.

⁸⁶Kathleen Short and Charles Nelson, U.S. Bureau of the Census, *Pensions: Worker Coverage and Retirement Benefits, 1987*, Current Population Reports, Series P-70, No. 25. Data from the Survey of Income and Program Participation. U.S. Government Printing Office, Washington, DC, June 1991, table 1.

⁸⁷Hayward and Grady, op.cit., pp. 13.

⁸⁸Ibid., pp. 16. Categories of class of worker: private wage and salary workers; government workers; self-employed workers; and unpaid family workers.

⁷⁷Ibid. Also, Cynthia Taeuber and Vic Valdisera, Bureau of the Census, *Women in the American Economy*, Current Population Reports, Series P-23, No. 146. U.S. Government Printing Office, Washington, DC, 1986, pp. 18-23.

⁷⁸Herz, op.cit., pp. 5-6, Table 2.

⁷⁹Philip L. Rones and Diane E. Herz, Bureau of Labor Statistics, *Labor Market Problems of Older Workers*, Report of the Secretary of Labor, Washington, D.C.: U.S. Government Printing Office, January 1989, pp. 38.

⁸⁰U.S. Bureau of the Census, *Educational Attainment: March 1989*, Current Population Reports, Series P-20, No. 451. U.S. Government Printing Office, Washington, DC, August 1991, table 1.

⁸¹Herz, op.cit., pp. 10 and Table 6 (pp. 11).

⁸²Herz, Table 6, pp. 11; unpublished data for Hispanics from 1987 Current Population Survey available from Diane Herz, Bureau of Labor Statistics.

⁸³Ibid., pp. 10-11.

⁸⁴Taeuber and Valdisera, op.cit., pp. 22, figure 23.

taken into account. Hayward and Grady call sociodemographic differences in retirement life expectancy of major importance in accurately estimating pension consumption during later life, and hence, the fiscal viability of pension programs.⁸⁹

Pension Coverage and Future Labor Force Participation

Women Are More Likely to Have Pensions in Their Own Names in the Future

In the future, a greater proportion of elderly could have pensions and that may reduce their desire to work. The Bureau of Labor Statistics projects that only 15 percent of men and less than 8 percent of women 65 years and older will be in the labor force in the year 2000. Among those aged 55 to 64 years, they project that 68 percent of men and 49 percent of women will be in the labor force.⁹⁰

As a result of the greater likelihood of women working now than in the past, young and middle-aged women are likely to have been in the labor force long enough to have savings, pensions, and Social Security in their own names which could make a significant difference in their economic status as they age. Research by Short and Nelson shows that in 1987, 64 percent of women wage and salary workers were covered by a pension plan and 40 percent were vested (33 percent were entitled to future benefits and 7 percent were entitled to lump-sum payments). Sixty-nine percent of men were covered by a pension plan and 49 percent were vested. Pension coverage rates of workers under 30

years of age were identical for men and women whereas men aged 35 to 64 had higher coverage and vesting rates than did women in that age group.⁹¹

Despite these changes, it is difficult to predict whether, in the future, such a large proportion of people in their early sixties will be able to afford to retire early as do now. In 1983, 4 in 5 pension plans had no minimum retirement age or provided full benefits at age 62; over 1 in 3 permitted retirement as early as age 55 with 30 years of service.⁹² Since then, there have been definite signs that pension plans will be less generous. Increasingly, workers are supporting a larger portion of the cost of their retirement plans than has been generally true in the recent past.

The elderly who want or need to work may compete with younger people and women of all ages, especially for part-time work. Many predict overall labor shortages for the future, however, because of the Baby Bust. If shortages come to pass, this may lessen the competition faced by elderly who want or need to work.

Part-Time Employment

Increasingly, Elderly Working in the Marketplace Are on Part-Time Schedules.

Only 2.9 million elderly worked in 1990 and less than half (47.3 percent) were on full-time schedules. Well-paid, part-time work is rare for any age group. Fringe benefits are generally small or nonexistent in part-time work.⁹³

⁹¹Short and Nelson, op.cit., pp. 3 and Table A.

⁹²Donald Bell and William Marclay, *Trends in Retirement Eligibility and Pension Benefits, 1974-1983*, Monthly Labor Review, April 1987, pp. 18-25.

⁹³Bureau of Labor Statistics, *Employment and Earnings* (January 1991, Table 33); Rones and Herz, op.cit., pg. 53.

Elderly workers were 8 percent of all workers in nonagricultural industries on part-time schedules in 1990. An increasing proportion of elderly who remain in the labor force, work part time. Of elderly who worked in 1990 in nonagricultural industries, 48 percent of the men and 59 percent of the women worked on part-time schedules compared with 1960 when only 30 percent of the men and 43 percent of the women worked part time.⁹⁴

Unemployment and Other Labor Market Problems

Older Workers Tend to Be at High Risk of Having Labor Market Problems.

Older workers may not be as protected from job loss as is often assumed. About 503,000 people 55 years and over were unemployed in 1990 (out of a total unemployment count of 6.9 million); 107,000 were aged 65 years and over.⁹⁵ Data limitations make it difficult to say much about job loss and employment opportunities among older people.

Official unemployment rates for the older population are lower than those of the young adult population (even if we include discouraged workers who stopped actively looking for work). Nevertheless, the Rones and Herz study reveals that most unemployed workers aged 55 to 64 were (1) laid off or permanently separated from their jobs, (2) looking for full-time work, and (3) lacking in adequate

⁹⁴Bureau of Labor Statistics, *Employment and Earnings*, January 1991, op.cit., Table 33, pg. 202; Robert L. Stein and Herman Travis, *Labor Force and Employment in 1960*, Special Labor Force Report No. 14, Monthly Labor Review, April 1961 (Table D-7, pg. A-35); Cynthia M. Taeuber, *America in Transition: An Aging Society*, U.S. Bureau of the Census, Current Population Reports, Series P-23, No. 128. U.S. Government Printing Office, Washington, DC, 1963, pg. 23.

⁹⁵Bureau of Labor Statistics, *Employment and Earnings*, January 1991, op.cit., Table 3, p. 164; Philip L. Rones and Diane E. Herz, op.cit., pg. 7. Not all unemployed are job losers.

⁸⁹Ibid., pp. 17-18.

⁹⁰Howard N. Fullerton, "New Labor Force Projections, Spanning 1988 to 2000," Monthly Labor Review, Vol. 112, No. 11 (November 1989), pg. 8, Table 4.

income to support themselves if they left the labor force (the three groups are not necessarily composed of the same people). While many older unemployed workers have Social Security or pension income, many do not. For example, of unemployed men aged 62 to 64 years in 1987, 45 percent had neither pension nor Social Security income and 40 percent had Social Security only.⁹⁶

Older workers, especially women, tend to be more concentrated in declining industries (for example, manufacturing and textiles) which puts them at a relatively higher risk of losing their jobs. Unemployed persons, and especially men, often suffer a significant decline in earnings if they find new employment. In 1986, one-fifth (18.7 percent) of all workers 20 years and over who lost their jobs (displaced workers) were 55 or older. Among those older displaced workers, about two-thirds reported losing their jobs because of plant closings. Displacement among older workers has a permanent negative economic effect. Further, the incidence and severity of labor market problems of older workers increase considerably in recessions.⁹⁷

Before the 1970's, the jobless rate for older men was usually higher than for men aged 25 to 54. Since then, the situation has reversed and now favors older men, probably because of options not available to younger workers. Such options include: (1) improvements in Social Security and private pension plans that have made retirement a viable alternative to employment or unemployment; and (2) the increased use of early retirement inducements. Thus, such options mean the elderly can choose more easily to stay out of the labor

force than can younger persons who continue to look for work and by definition are unemployed. Retirees are less likely to reenter the labor force once they have retired than was true in the late 1960's and early 1970's.⁹⁸

There is little data on unemployment and other labor market problems of older racial and ethnic groups. This is primarily because surveys of the labor force are too small to measure the job market status of small population groups. Nevertheless, the 1985 National Commission for Employment Policy found that older Blacks were 4 times and older Hispanics were 3 times as likely as older Whites to experience labor market problems.⁹⁹ A 1989 report of the Secretary of Labor said:

There is no question that older Blacks and other minorities are far more likely than Whites to experience labor market problems. Limited available data suggest that older minority workers, like those of all ages, have higher rates of unemployment and discouragement and lower earnings than do older Whites. These lifetime differences in employment and earnings generally mean fewer resources at retirement age. As a result, some older workers must maintain attachment to the job market long after those with greater financial resources might have retired.¹⁰⁰

Income Income Distributions

The overall economic position of the elderly has improved significantly since the 1970's (for example, the

poverty rate of the elderly exceeded that for children until about 1973).¹⁰¹ Nevertheless, not everyone within the elderly population shared equally in the income gains as we will discuss below. Elderly people also face major economic uncertainties in terms of health expenditures and the length of life that must be financed.

Ryscavage found during the economic recovery after the recession of the early 1980's, real income growth for the elderly was similar to the total population from 1982 to 1989. His research shows the elderly with a somewhat more unequal distribution of income than the total population. Additionally, he found some evidence of an increase in income inequality among the elderly over the 1979 to 1989 period.¹⁰²

Money income generally decreases after retirement but is relatively stable because so many elderly receive Social Security. For those older people with retirement income indexed to increase with inflation, income is affected less by fluctuations in the economy than is true for the younger population. Another important source is property income which is less insulated from downturns in the economy. As such, Radner¹⁰³ concludes the income of the elderly is sensitive to changes in the performance of the economy and to

¹⁰¹Mark Littman, U.S. Bureau of the Census, *Poverty in the United States: 1990*, Current Population Reports, Series P-60, No. 175, U.S. Government Printing Office, Washington, DC, August 1991, pg. 2.

¹⁰²Paul Ryscavage, "Trends in Income and Wealth of the Elderly in the 1980s," paper presented to the American Society on Aging in New Orleans, March 18, 1991, pg. 9. In the Ryscavage paper, the change in the Gini index, from .446 to .467 was on the borderline of statistical significance. In the Gini index, 0.0 represents perfect equality and 1.0 represents perfect inequality. Other researchers have observed growing inequality among elderly households during the 1980's. See Daniel B. Radner, "Changes in the Income of Age Groups, 1964-1989," *Social Security Bulletin*, Vol. 54, No. 12, December 1991, pp 2-18.

¹⁰³Radner, *Ibid.*

⁹⁶Rones and Herz, *Ibid.*, Table 2, pg. 11.

⁹⁷*Ibid.*, pp. 6-12, 16-19, 28-33.

⁹⁸*Ibid.*, pp. 6-9.

⁹⁹*Ibid.*, pg.4.

¹⁰⁰*Ibid.*

long-run trends. Radner's study shows the elderly, from 1984 to 1989, had substantial increases in earning and pension income and a substantial decrease in property income.

Income Differences Are Significant Among Elderly Subgroups

Using constant 1990 dollars, the median income of the population aged 65 and over has more than doubled since 1957 (from \$6,609 to \$14,183 for elderly men; and from \$3,447 to \$8,044 for elderly women).¹⁰⁴ Not everyone within the elderly population shared equally in the income gains of the 1980's. It is misleading to talk about the total elderly population. Income differences are significant for population subgroups defined by characteristics such as age, sex, race, ethnicity, marital status, living arrangements, educational attainment, former occupational status, and work history. Although rural elderly and elderly in Southern States had the lowest median incomes in the 1980 census, characteristics such as older average age, widowhood, lower educational attainment, and lower occupational status explain income differences better than place of residence.¹⁰⁵

Living arrangements and marital status are related to how well subgroups do. Elderly married-couple families fared best over the decade.

¹⁰⁴Carmen DeNavas and Edward Welniak, U.S. Bureau of the Census, *Money Income of Households, Families, and Persons in the United States: 1990*, Current Population Reports, Series P-60, No. 174. U.S. Government Printing Office, Washington, DC, August 1991, table 26; also P-60, No. 30, table 18, for 1957 data. The median income of the total population 15 years and over also increased (in constant 1990 dollars, from \$17,135 in 1957 for males to \$20,293 in 1990; for females, from \$5,577 to \$10,070). The medians in current 1957 dollars were: males 65+, \$1,421; females 65+, \$741; males 15+, \$3,684; females 15+, \$1,199. The 1990/1957 CPI-U factor is 4.65125.

¹⁰⁵Nina Glasgow, Department of Agriculture, Economic Research Service, *The Nonmetro Elderly: Economic and Demographic Status*, Rural Development Research Report, No. 70, Washington, D.C.: Government Printing Office, 1988, page iii.

Their real incomes rose by 21 percent, from \$17,330 to \$20,996 from 1979 to 1987 (in 1987 dollars). The incomes of elderly female unrelated individuals increased by only 13 percent over that period, from \$6,966 to \$7,863. Ryscavage noted that the economic situation for elderly Black women who are poor has been particularly intractable in that their poverty rates have not improved over the decade.¹⁰⁶

In 1990, incomes greater than \$20,000 were more likely among younger than elderly married-couple households. More than 8 in 10 (86.4 percent) married-couple households under age 65 had incomes of \$20,000 or more. Seven percent had incomes greater than \$100,000. In contrast, more than 6 in 10 (64.0 percent) married-couple households with a householder aged 65 or older had incomes of \$20,000 or more annually. Four percent of all elderly married-couple households had incomes greater than \$100,000 (there were 365,000 such households and three-fourths (75.8 percent) had householders aged 65 to 74).¹⁰⁷ When making these comparisons, we should keep in mind that married-couple families with the householder aged under 65, had an average of 3.43 family members in 1990 to share the family income. For elderly married-couple families, the average number of family members was 2.27.¹⁰⁸

Four in ten (39.4 percent) elderly Black married-couple households had incomes greater than \$20,000

¹⁰⁶Ryscavage, op.cit., pp. 9-11.

¹⁰⁷DeNavas and Welniak, op.cit., Table 8.

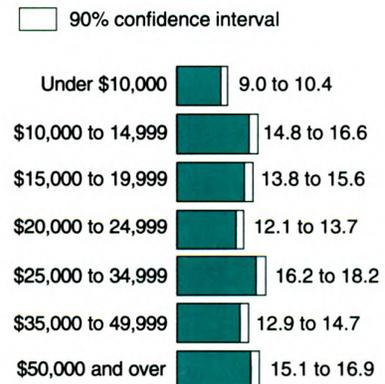
¹⁰⁸Steve Rawlings, U.S. Bureau of the Census, *Household and Family Characteristics: March 1990 and 1989*, Current Population Reports, Series P-20, No. 447. U.S. Government Printing Office, Washington, DC, 1991, table 3 (pg. 25).

in 1990.¹⁰⁹ Average family size was 2.67 (statistically similar to householders under 65 and 65 and over). Figures 4-2 through 4-7 provide graphic evidence of the differences in the income distributions of married couples classified by age and race.

Married couples with a householder aged 65 to 74 are more likely to have higher incomes than are couples with householders 75 years and over. In 1990, about 7 in 10 (69.5 percent) married-couple households with a householder aged 65 to 74 years had incomes greater than \$20,000 compared with half (51.5 percent) of such households with a householder aged 75 or older (figure 4-8). The average size of elderly married-couple families in 1990 was similar for age

¹⁰⁹U.S. Bureau of the Census, unpublished tabulations from March 1990 CPS, matrix b3 for married-couple, primary families, page 198; available from Carmen DeNavas, Income Branch, Housing and Household Economic Statistics Division, 301-763-8576.

Figure 4-2.
Total Money Income in 1989 of Married-Couple Households With White Householders 65 Years and Over: March 1990
(In percent)



Source: U.S. Bureau of the Census, Housing and Household Economic Statistics Division, unpublished tabulations from March 1990 Current Population Survey.

groups: 2.32 where the householder was aged 65 to 74 and 2.16 where the householder was 75 or older.

The elderly who lived alone were more likely than married couples to have low incomes in 1990. The majority (55.0 percent) of those 75 years and over who lived alone had incomes below \$10,000 in 1990 (figure 4-9). By comparison, 48.5 percent of married-couple households had incomes below \$20,000 where the householder was 75 or older. The comparable figures for people aged 65 to 74 who lived alone and in married-couple families were 44.4 percent and 30.5 percent, respectively.

Among elderly subgroups, White men had much higher median incomes than other groups. The 1990 median income for White men 65 years and over was more than double that of elderly Black and Hispanic women

(figure 4-10, the differences in median income were not statistically significant between Black and Hispanic women and between White women and Hispanic men). Data from the 1980 census showed the same pattern (figure 4-11).

Sources of Income Among the Elderly

Social Security Benefits Are the Primary Source of Money Income for the Elderly.

Social Security, combined with pension benefits, accounted for 45 percent of the total household income of elderly retirement pension recipients in December 1986.¹¹⁰ Since the 1940's, there has been a marked increase in reliance on Social Security and a decline in the importance of earnings even though earnings make

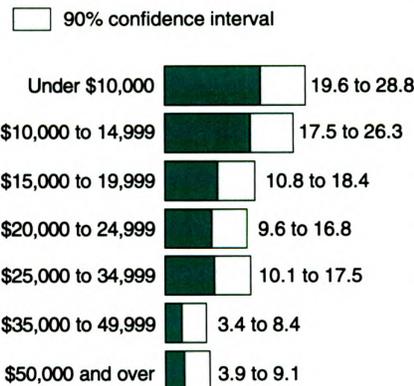
a great difference in the economic position of older people. In 1940, less than one percent of the elderly received Social Security benefits and 22 percent received general welfare assistance. In 1990, 92 percent received Social Security benefits (mean income was \$6,163) and 6 percent received public assistance or Supplemental Security Income (SSI) (mean income from these sources was \$2,263).¹¹¹

The Social Security program was the major source of income (provided at least 50 percent of total income) for 61 percent of beneficiaries in 1987. It contributed almost all of the income (90 percent or more) for 25 percent and was the only

¹¹⁰Short and Nelson, Current Population Reports, Series P-70, No. 25, op.cit., table G, pg. 7.

¹¹¹DeNavas and Welniak, op.cit., Current Population Reports, Series P-60, No. 174, table 34; also see Virginia Reno and Susan Grad, *Economic Security, 1935-1985*, Social Security Bulletin, Dec. 1985, Tables 12 and 13.

Figure 4-3.
Total Money Income in 1989 of Married-Couple Households With Black Householders 65 Years and Over: March 1990
(In percent)



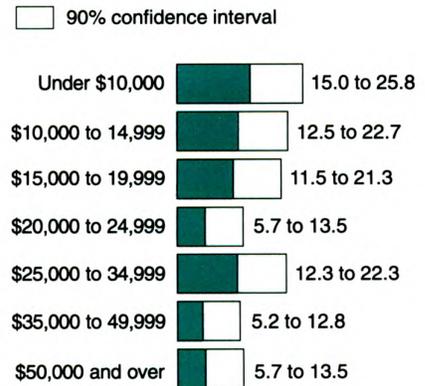
Source: U.S. Bureau of the Census, Housing and Household Economic Statistics Division, Income Branch, unpublished tabulations from March 1990 Current Population Survey.

Figure 4-4.
Total Money Income in 1989 of Married-Couple Households With White Householders 65 to 74 Years: March 1990
(In percent)



Source: U.S. Bureau of the Census, Housing and Household Economic Statistics Division, Income Branch, unpublished tabulations from March 1990 Current Population Survey.

Figure 4-5.
Total Money Income in 1989 of Married-Couple Households With Black Householders 65 to 74 Years: March 1990
(In percent)



Source: U.S. Bureau of the Census, Housing and Household Economic Statistics Division, Income Branch, unpublished tabulations from March 1990 Current Population Survey.

source of income for 14 percent of beneficiaries.¹¹²

One indicator of the trend towards earlier retirement is the proportion of various age groups receiving Social Security benefits. The majority of people over age 62 now receive Social Security benefits. In 1965, 38 percent of insured people aged 62 to 64 received Social Security benefits (32 percent were retired and 6 percent were disabled workers). By 1988, 59 percent were insured (49 percent because they were retired and the remainder received benefits as disabled workers). In 1965, 80 percent of people aged 65 to 71 received benefits and that increased to 89 percent in 1988. Since 1965,

¹¹²Sally R. Sherman, Social Security Administration, Office of Research and Statistics, *Fast Facts and Figures About Social Security*, 1989, pg. 6.

virtually all people aged 72 or older have received benefits.¹¹³

The Elderly Are More Likely Than Adults Aged 25 to 64 to Receive Welfare Assistance.

Over a 32-month period from 1983 to 1986, 18 percent of people aged 65 and over received major welfare assistance compared with 15 percent of people aged 25 to 44 and 11 percent of people aged 45 to 64.¹¹⁴ Children were more likely than elderly to receive major welfare assistance

¹¹³*Ibid.*, pg. 17.

¹¹⁴John M. McNeil, U.S. Bureau of the Census, *Characteristics of Persons Receiving Benefits from Major Assistance Programs*, Current Population Reports, Series P-70, No. 14. U.S. Government Printing Office, Washington, DC, April 1989, table B, pp. 3-5. Major assistance includes Aid to Families With Dependent Children (AFDC), General Assistance, and Supplemental Security Income (SSI), food stamps, Medicaid, and housing assistance. Data are from the Survey of Income and Program Participation, the full panel file from the 1984 SIPP (the first interview was conducted in October 1983 and the final interviews were conducted in 1986).

and welfare was a larger part of their family income. The elderly were more likely than children to be long-term recipients of welfare, however. About 3 in 5 (62 percent) elderly welfare recipients received major assistance over the entire 32 months compared with 2 in 5 under age 18 (41.0 percent). Of those who lived in families which obtained welfare over at least part of the 32-month period, about one-fourth of the elderly (25.9 percent) and one-half (47.4 percent) of youth under 18 received half or more of their total family income from cash assistance¹¹⁵ or food stamps. From another perspective, about 3 percent of the total elderly population and 11 percent of all people under 18 lived in families which received half or more of their

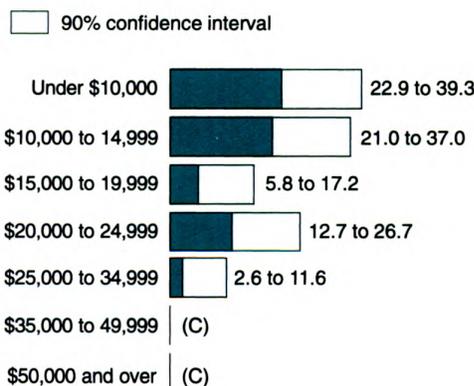
¹¹⁵Cash assistance includes AFDC, General Assistance, and SSI. Housing assistance and Medicaid are not included.

Figure 4-6.
Total Money Income in 1989 of Married-Couple Households With White Householders 75 Years and Over: March 1990
(In percent)



Source: U.S. Bureau of the Census, Housing and Household Economic Statistics Division, Income Branch, unpublished tabulations from March 1990 Current Population Survey.

Figure 4-7.
Total Money Income in 1989 of Married-Couple Households With Black Householders 75 Years and Over: March 1990
(In percent)



C Confidence interval includes zero.

Source: U.S. Bureau of the Census, Housing and Household Economic Statistics Division, Income Branch, unpublished tabulations from March 1990 Current Population Survey.

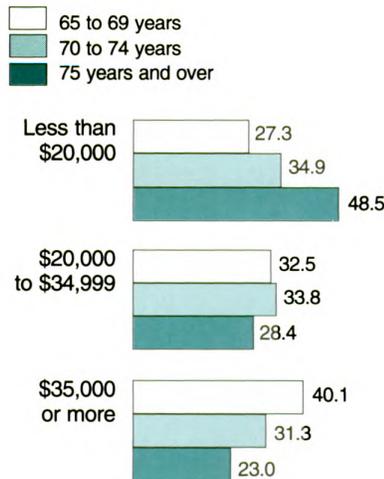
total income over the 32-month period from cash assistance or food stamps.¹¹⁶

Data from the 1989 American Housing Survey showed that of the 15.2 million households with an elderly householder and income of \$25,000 or less, 13.6 million had no family members who received food stamps. Of the 20.1 million units with an elderly householder, 0.8 million were owned by a public housing authority and 0.4 million received some other federal, state, or local rental subsidy.¹¹⁷

¹¹⁶McNeil, op.cit., Current Population Reports, Series P-70, No. 14, table B.

¹¹⁷U.S. Bureau of the Census, 1989 American Housing Survey, tables 7 through 12.

Figure 4-8.
Income in 1989 of Married-Couple Households, by Age of Householder: March 1990
(In percent)



Source: C. DeNavas and Ed Welniak, U.S. Bureau of the Census, *Money Income of Households, Families, and Persons in the United States: 1990*, Current Population Reports, Series P-60, No. 174. U.S. Government Printing Office, Washington, DC, July 1991, table 8.

Most Elderly Received Property Income But Earnings Provided the Highest Average Income.

Property income¹¹⁸ was received by 71 percent of elderly people in 1990. The mean income was relatively low, however, \$5,245. Earnings provided the highest mean income (\$14,146) of all major sources and they were received by only 16 percent of elderly (4.9 million elderly in 1990). Mean earnings for White elderly (\$14,498) were higher than that of Black elderly (\$9,400) and Hispanic-origin elderly (\$10,331).¹¹⁹

Private Pensions Are an Important Source of Income for the Elderly

Private pensions are another important source of income for the older population. The mean income received from pensions in 1990 was \$7,825. Because women are increas-

¹¹⁸Includes dividends, interest, net rental income, income from estates or trusts, and net royalties.

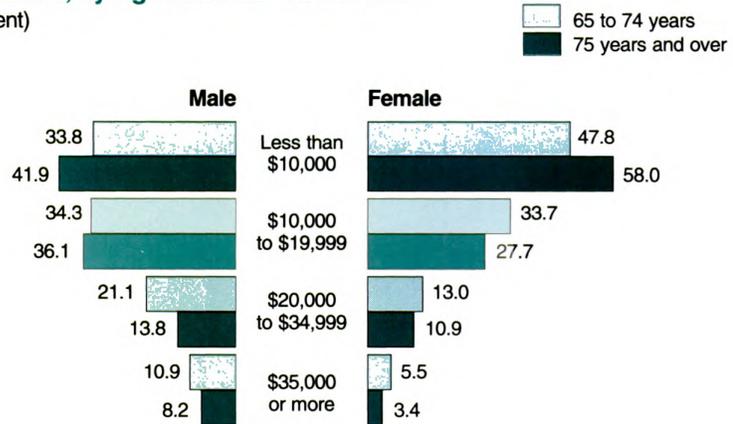
¹¹⁹DeNavas and Welniak, op.cit., Current Population Reports, Series P-60, No. 174, table 34.

ingly joining the labor force and because men are increasingly likely to live at least into their seventies, we can expect in the future to see more married couples with two private pensions in addition to Social Security benefits. As we saw above, however, there are important differentials in pension coverage among various population groups.

There are also important differentials in who receives pensions. About one-third of elderly individuals living alone have private pension income.¹²⁰ From Current Population Survey data for 1990, we find that 34 percent of elderly Whites, 22 percent of elderly Blacks, and 19 percent of Hispanic-origin elderly received pension income (the apparent difference between Blacks and Hispanics is not statistically significant). From the Survey of Income and

¹²⁰Commonwealth Fund Commission on Elderly People Living Alone, *Old, Alone, and Poor*, Overview and Recommendations, April 16, 1987, pg. 1.

Figure 4-9.
Income in 1989 of Elderly Householders Living Alone, by Age and Sex: March 1990
(In percent)



Source: C. DeNavas and Ed Welniak, U.S. Bureau of the Census, *Money Income of Households, Families, and Persons in the United States: 1990*, Current Population Reports, Series P-60, No. 174. U.S. Government Printing Office, Washington, DC, July 1991, table 8.

Program Participation (SIPP), we find that in December 1986, 12.4 million retirees (of any age)¹²¹ received pension benefits. Two-thirds were men. Short and Nelson found that the overall mean pension incomes of White, Black, and Hispanic-origin retirees were not significantly different from one another. They also found that just over half of all retirement income recipients had pensions with Cost of Living Adjustment (COLA) provisions. Not only were these retirees protected from inflation, their mean pension was 70 (± 18) percent higher than the mean pension income of retirees with no COLA provision.¹²²

One in five (18.7 percent) pension recipients had completed 4 or more years of college and their mean monthly pension income in December 1986, not including Social Security, was \$1,069, compared with \$577 for high school graduates, and \$379 for those not completing high school. Some 1.7 million people receiving a pension also worked at a wage or salary job and their average pension was \$787. The 10.7 million retirees who did not work received less in the reference period, on average, \$616. Three-fourths (76.7 percent) of all retirement pension recipients, about 9.5 million retirees, also received monthly Social Security payments averaging \$529.¹²³

Some believe that we are now seeing the "golden age of the golden years,"¹²⁴ and that Baby-Boom retirees will be less well off than today's retirees. There are many indicators

¹²¹The SIPP universe for retirement consisted of all persons 25 years old and over who had retired from a job and received income as a retiree, a survivor, or a dependent during December 1986.

¹²²Short and Nelson, op.cit., p. 2.

¹²³Ibid., table 5.

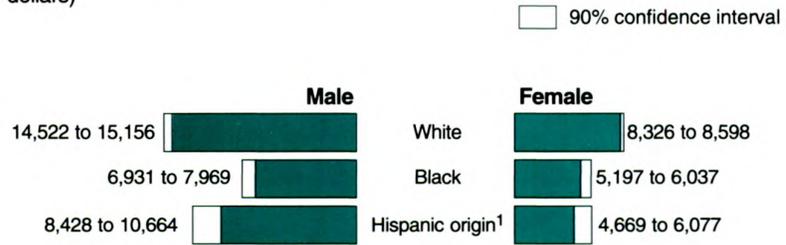
¹²⁴Mark H. Weinstein, *The Changing Picture in Retiree Economics*, Statistical Bulletin, Metropolitan Life Insurance, Vol. 69, No.3 (July-Sept 1988), pg. 7.

that the personal savings and retirement benefits of the elderly may be less in the future and that more of the burden for economic security will fall on the individual. John R. Woods showed limited evidence of a shift in pension coverage from traditional defined contribution plans to plans that allow pretax employee contributions (such as 401(k) plans). Woods used data from the 1988 Survey

of Employee Benefits and found that workers in smaller firms were less likely to be covered than those in larger firms. Industries with low rates of coverage included construction, retail trade, nonprofessional services, and agriculture.¹²⁵

¹²⁵John R. Woods, *Pension Coverage Among Private Wage and Salary Workers: Preliminary Findings From the 1988 Survey of Employee Benefits*, Social Security Bulletin, October 1989, Vol. 52, No. 10, pp. 2-19.

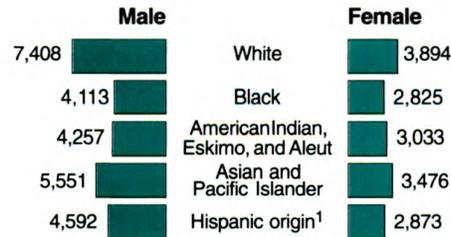
Figure 4-10.
Median Incomes in 1989 of Persons 65 Years and Over, by Sex and Race: March 1990
(In dollars)



¹Hispanic origin may be of any race.

Source: C. DeNavas and E. Welniak, U.S. Bureau of the Census, *Money Income of Households, Families, and Persons in the United States: 1990*, Current Population Reports, Series P-60, No. 174. U.S. Government Printing Office, Washington, DC, July 1991, table 26.

Figure 4-11.
Median Income in 1979 of Persons 65 Years and Over: 1980
(In dollars)



¹Hispanic origin may be of any race.

Source: U.S. Bureau of the Census, 1980 Census of Population, *Detailed Population Characteristics*, PC 80-1-D1-A. U.S. Government Printing Office, Washington, DC, March 1984, table 293.

Poverty Status

Poverty Trends

Poverty Rates Vary Greatly Among Subgroups.

The perception of "elderly" and "poor" as practically synonymous has changed in recent years to a view that the elderly are better off than other Americans. Both views are simplistic. There are important differences among subgroups and we will discuss some below.

About 33.6 million Americans were poor¹²⁶ in 1990. Of these, about 3.7 million were aged 65 or older, 16.5 million were aged 18 to 64 years, and 13.4 million were children under 18. Though the poverty rate for persons aged 65 or older was lower in 1990 than that for children and

¹²⁶Families and unrelated individuals are classified as being above or below the poverty level using the poverty index originated by the Social Security Administration in 1964 and revised by the Federal Interagency Committee in 1969 and 1980. The poverty index is based solely on money income and does not reflect the fact that many low-income persons receive noncash benefits such as food stamps, Medicaid, and public housing. To be in poverty means that a family of at least three people does not have money income equal to 3 times (slightly higher adjustment for smaller families) the cost of the "Economy Food Plan" established by the Department of Agriculture. The plan assumes that older, healthy people have lower nutritional requirements than younger people and therefore the poverty threshold is higher for persons under age 65. The poverty threshold in 1990 for a single person 65 or older was \$6,268, 8 percent less than the \$6,800 used for single householders aged 15 to 64. For a two-person elderly household with no related children, it was \$7,900 compared with \$8,752 for younger householders, an 11 percent difference. If the thresholds used for the younger population also were used for the elderly, poverty rates for the elderly would increase. Poverty rates would decrease if specific taxes were deducted and specific noncash benefits were included in the definition of income. Poverty rates would also decrease if the annual adjustment for cost-of-living changes were based on a Consumer Price Index (CPI) that included a consistent treatment of the housing component of the CPI (that is, use of the CPI-U-X1 as a price deflator rather than the CPI-U). These issues are discussed more completely in a report by the U.S. Bureau of the Census, *Money Income and Poverty Status in the United States: 1988* (Advance Data from the March 1989 Current Population Survey), Current Population Report Series, P-60, No. 166. U.S. Government Printing Office, Washington, DC, 1989.

young adults aged 18 to 24, it was higher or not significantly different from that for other adult age groups. The 1990 poverty rate was 12.2 percent of elderly people, and 20.6 percent of children.¹²⁷

Radner¹²⁸ shows a wide range of poverty rates among detailed age groups. The rates ranged in 1989 from 8.2 percent for persons aged 65 to 69 up to 18.4 percent for persons aged 85 or older (table 4-3).

¹²⁷Mark S. Littman, Current Population Reports, Series P-60, No. 175, op.cit., tables 1 and 3.

¹²⁸Radner, *Changes in the Incomes of Age Groups, 1984-1989*, op.cit., Table 8 (p. 10).

Table 4-3.
Percentage of Persons Poor or Near Poor, by Age of Person: 1989

Age	Below poverty threshold	Below 150 percent of poverty threshold
All ages	12.8	22.0
Under 65 years . .	13.0	21.2
65 years and over	11.4	27.2
Under 5 years . . .	22.6	33.9
5 to 9 years	20.3	31.2
10 to 14 years . . .	18.1	28.2
15 to 19 years . . .	15.6	25.0
20 to 24 years . . .	14.8	24.7
25 to 29 years . . .	11.3	20.0
30 to 34 years . . .	10.8	18.4
35 to 39 years . . .	8.9	15.2
40 to 44 years . . .	7.2	13.1
45 to 49 years . . .	7.2	12.2
50 to 54 years . . .	7.7	13.0
55 to 59 years . . .	9.7	16.2
60 to 64 years . . .	9.5	17.4
65 to 69 years . . .	8.2	20.2
70 to 74 years . . .	9.6	24.7
75 to 79 years . . .	13.5	32.7
80 to 84 years . . .	16.7	36.8
85 years and over	18.4	38.6

Source: Daniel B. Radner, "Changes in the Incomes of Age Groups, 1984 to 89", *Social Security Bulletin*, December 1991, Vol. 54, No. 12, Table 8.

Partly because of "catch-up" increases and the indexing of Social Security to rates of inflation, there have been significant changes nationally in the percentage of all poor who are elderly. In 1959, 33.1 percent of White elderly and 62.5 percent of Black elderly were poor. In 1990, 10.1 percent of White elderly, 22.5 percent of Hispanic elderly, and 33.8 percent of Black elderly were poor¹²⁹ (table 4-4).

Women made up 58 percent of the elderly population but 74 percent of the poor elderly population in 1990. Although Blacks were only 8 percent of the total elderly population, they made up 24 percent of all elderly poor. Black women were 5 percent of the elderly population and 16 percent of the elderly poor (detailed table 8-3).

Other subgroups also differ. In 1990, poverty increased with age for elderly White men and women. For Blacks and Hispanics, poverty rates were not effectively different for those aged 65 to 74 compared with those aged 75 years and over (figure 4-12). Poverty rates for Hispanic men 75 years and over were not statistically different from any group other than Black women 75 years and over. Among the remaining groups, poverty is lowest for elderly White men aged 65 to 74. Black and Hispanic women have higher poverty rates than White women aged 65 to 74.¹³⁰

Among those 85 years and over, the 1990 poverty rate (shown in table 4-5 as 90-percent confidence intervals) of Black women aged 85 and over (15 to 56 percent) was

¹²⁹Estimates from the March 1990 Current Population Survey are in some instances not strictly comparable with estimates for previous years due to several factors. These factors are discussed in Current Population Reports, Series P-60, No. 175, op.cit., pp. 200-201.

¹³⁰U.S. Bureau of the Census, op.cit., Current Population Reports, Series P-60, No. 175, table 5.

Table 4-4.
Poverty Status of Persons, by Age, Race and Hispanic Origin: 1959 to 1990
 (Numbers in thousands. Persons as of March of the following year)

Year and race	All persons below poverty		Persons under 18 years below poverty		Persons 65 years and over below poverty	
	Number	Percent	Number	Percent	Number	Percent
All Races						
1990.....	33,585	13.5	13,431	20.6	3,658	12.2
1985.....	33,064	14.0	13,110	20.7	3,456	12.6
1980.....	29,272	13.0	11,543	18.3	3,871	15.7
1975.....	25,877	12.3	11,104	17.1	3,317	15.3
1970.....	25,420	12.6	10,440	15.1	4,793	24.6
1966.....	28,510	14.7	12,389	17.6	5,114	28.5
1959.....	39,490	22.4	17,552	27.3	5,481	35.2
White						
1990.....	22,326	10.7	8,232	15.9	2,707	10.1
1985.....	22,860	11.4	8,253	16.2	2,698	11.0
1980.....	19,699	10.2	7,181	13.9	3,042	13.6
1975.....	17,770	9.7	6,927	12.7	2,634	13.4
1970.....	17,484	9.9	(NA)	(NA)	4,011	22.6
1966.....	19,290	11.3	(NA)	(NA)	4,357	26.4
1959.....	28,484	18.1	(NA)	(NA)	4,744	33.1
Black						
1990.....	9,837	31.9	4,550	44.8	860	33.8
1985.....	8,926	31.3	4,157	43.6	717	31.5
1980.....	8,579	32.5	3,961	42.3	783	38.1
1975.....	7,545	31.3	3,925	41.7	652	36.3
1970.....	7,548	33.5	(NA)	(NA)	683	48.0
1966.....	8,867	41.8	(NA)	(NA)	722	55.1
1959.....	9,927	55.1	(NA)	(NA)	711	62.5
Hispanic Origin¹						
1990.....	6,006	28.1	2,865	38.4	245	22.5
1985.....	5,236	29.0	2,606	40.3	219	23.9
1980.....	3,491	25.7	1,749	33.2	179	30.8
1975.....	2,991	26.9	(NA)	(NA)	137	32.6
1970.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1966.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1959.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.

¹Hispanic origin may be of any race.

Source: Mark Littman, U.S. Bureau of the Census. *Poverty in the United States: 1990*, Current Population Reports, Series P-60, No. 175. U.S. Government Printing Office, Washington, DC, 1991, tables 2 and 3.

higher than that of White men (4 to 15 percent). Poverty rates from the 1980 census for people 85 years and over varied from 8 percent for oldest old women living in families to 73 percent of the nearly 31,000 Black women who lived alone (figure 4-13).¹³¹

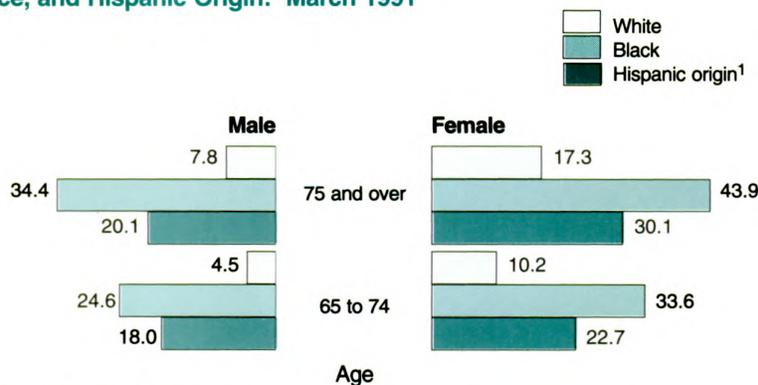
Data from the 1980 census¹³² show that poverty rates among elderly American Indians were similar to those of Blacks. The rates for Asians and Pacific Islanders were closer to the relatively low rates of White elderly (figure 4-14).

Poverty rates in 1980 were higher among the elderly in nonmetropolitan rural areas than metropolitan rural or urban areas (figure 4-15). Among the oldest old in rural nonmetropolitan areas, one-third of women and one-fourth of men were poor.

¹³¹U.S. Bureau of the Census, special tabulations from the 1980 Census of Population (tabulations funded by the National Institute on Aging), available from Age and Sex Statistics Branch, Population Division, Bureau of the Census, phone: 301-763-7883.

¹³²Poverty rates from the decennial census and the Current Population Survey are not strictly comparable.

Figure 4-12.
Percent Poor Elderly in 1990, by Age, Sex, Race, and Hispanic Origin: March 1991



¹Hispanic origin may be of any race.

Source: Mark Littman, U.S. Bureau of the Census, *Poverty in the United States: 1990*, Current Population Reports, Series P-60, No. 175. U.S. Government Printing Office, Washington, DC, 1991, table 5.

Table 4-5.
Poverty Rates of Persons 85 Years and Over: 1981 to 1990
(Percent poor shown in 90-percent confidence intervals)

Year	White males	White females	Black females ¹
1990	4.3 to 15.3	17.4 to 28.4	15.2 to 55.6
1989	4.1 to 15.5	14.4 to 25.2	24.2 to 67.2
1988	5.3 to 19.1	11.9 to 22.9	16.3 to 61.5
1987	7.8 to 15.2	15.5 to 21.7	41.5 to 67.7
1986	9.2 to 16.8	14.6 to 20.6	29.8 to 57.8
1985	10.1 to 18.9	14.0 to 20.4	31.1 to 56.5
1984	8.0 to 16.0	14.3 to 20.9	32.8 to 60.4
1983	8.0 to 16.2	18.9 to 26.1	30.6 to 61.0
1982	9.3 to 17.9	18.0 to 25.4	30.1 to 59.9
1981	8.3 to 16.1	21.0 to 28.0	35.4 to 63.6

¹There are not enough Black males 85 years and over in the survey to show statistically reliable data. Source: U.S. Bureau of the Census, unpublished data from March 1982 to 1991, Current Population Survey, available from Mark Littman, Housing and Household Economic Statistics.

There were 7.1 million poor families in 1990. Of all poor families, 686,000 had an elderly householder, with a poverty rate of 6.3 percent. In married-couple households with an elderly householder, poverty rates were lower where the householder was White (3.8 percent) than Black (21.5 percent) or Hispanic

(15.7 percent). Elderly who did not live with relatives (“unrelated individuals” in census terminology, most of whom live alone) were more likely to be poor in 1990 (24.7 percent) than elderly married-couple family householders (5.0 percent). Poverty rates were lower for White elderly women (24.0 percent) who did not live with relatives than for elderly women who are Black (60.1 percent) or Hispanic (49.7 percent) unrelated individuals (figure 4-16).

The Elderly Are More Likely to Be Near Poor Than the Younger Population

The elderly were more likely to be “near poor” than the under-65 population. That is, a higher proportion of elderly than nonelderly people were concentrated between 100 percent and 125 percent of their respective poverty thresholds. One in five (18.3 percent) of the 11.3 million people who were near poor were elderly compared with 10.9 percent of the 33.6 million people below the poverty level. Of the 2.1 million near poor elderly in 1990, 68.7 percent were elderly women (1.4 million)

and 51.5 percent (1.1 million) were aged 75 years and over.¹³³

In addition to the 686,000 families with elderly householders who were poor, another 471,000 were near poor in 1990. Among the 9.5 million elderly who lived alone, 2.3 million were poor and an additional 1.2 million were near poor; 1.2 million received means-tested government assistance such as food stamps, Medicaid, or subsidized housing.¹³⁴

Most Elderly Poor Who Live Alone Are Women

Of the poor 2.3 million elderly who lived alone in 1990, nearly 2 million were elderly women and half received means-tested assistance. Assistance for these poor elderly women living alone included food stamps for 0.4 million, Medicaid for 0.6 million, and public or subsidized housing for 0.5 million.¹³⁵

About 1 million elderly women who lived alone in 1990 were near poor. These 1 million women were predominantly White (89 percent) and residents of metropolitan areas (76 percent).¹³⁶

Low Educational Attainment Is Associated With Poverty

Education is closely associated with lifetime economic status, and poverty rates drop dramatically as educational level of the elderly increases. Twenty percent of the 12.7 million elderly who never finished high school were poor in 1990. That was 2.6 million people or 70 percent of the nation's 3.7 million elderly poor. Most of the elderly poor with so little education were White (1.8 million); 75 or older (1.4 million); and women (0.8 million aged

65 to 74, 1.0 million aged 75 or older). Less than 8 percent of elderly who completed high school but no college were poor. Only 122,000 elderly who had completed college were poor and they represented 3.3 percent of the 3.7 million elderly college graduates.¹³⁷

Elderly Who Worked Some Time During 1990 Rarely Faced Poverty

Only 4 percent of 4.9 million elderly workers were poor in 1990. Most of these poor did not work year round and full time. Three in five (59.5 per-

cent) of poor elderly workers were women.¹³⁸

Transitions in Income and Poverty Status

Data from the Survey of Income and Program Participation¹³⁹ allow us to

¹³⁸Ibid., table 14 (p. 98).

¹³⁹For analysis of changes in income and poverty status in 1985 and 1986 for the total population, see Kathleen Short and Mark Littman, U.S. Bureau of the Census, *Transitions in Income and Poverty Status: 1985-1986*, Current Population Reports, Series P-70, No. 18. U.S. Government Printing Office, Washington, DC, June 1990; this report includes excellent discussions of data definitions and data quality. The tabulations used here for the elderly for 1986 and 1987 are published in Current Population Reports, Series P-70, No. 24. U.S. Government Printing Office, Washington, DC, August 1991.

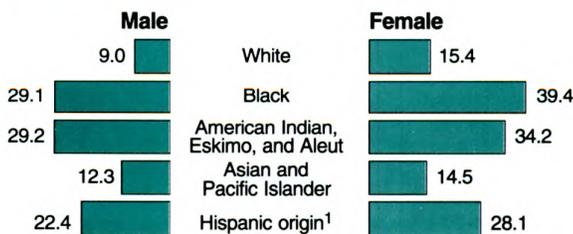
¹³⁷Ibid., table 11.

Figure 4-13. Percent Poor in 1979 of Persons 85 Years and Over: 1980



Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Special Tabulations for National Institute on Aging (Summary Tape File 5A, table 6). Produced by Age and Sex Statistics Branch, Population Division.

Figure 4-14. Percent Poor in 1979 of Persons 65 Years and Over: 1980



¹Hispanic origin may be of any race.

Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Special Tabulations for National Institute on Aging (Summary Tape File 5A). Produced by Age and Sex Statistics Branch, Population Division.

¹³³Mark S. Littman, Current Population Reports, Series P-60, No. 175, op.cit., pp. 2-3, table 6.

¹³⁴Ibid., tables 6 (p. 30) and 7 (pp. 45-46).

¹³⁵Ibid., table 7 (p. 46).

¹³⁶Ibid., table 6 (p. 30).

make comparisons in the characteristics of elderly who were (1) poor in 1986 and 1987, (2) able to leave poverty between 1986 and 1987, and (3) poor in 1987 but not in 1986. With these data we can also measure year-to-year movement of people along the income distribution.

An important caution is that this analysis includes only elderly from whom information was collected in all eight interviews of the 1986-1987 survey. The data are presented for persons rather than families because family composition can change over a 2-year period. People are characterized by the income and poverty status of their respective family unit based on living arrangements each month during the period of study. Income reflects money income only before taxes and does not include the value of noncash benefits.

Overall, Elderly Higher In Economic Status Than Children But Less Likely to Increase Their Income

Short and Littman report that people aged 65 or older were significantly more likely to have family or individual¹⁴⁰ incomes under \$10,000 than the total population. They found mean family or individual income was 70 percent of the under-18 group for those 65 and over and 58 percent for those 75 years and over. As discussed above, comparisons of family income do not indicate the number of persons sharing the family income. To account for changes in family size and composition, Short and Littman make comparisons using income-

¹⁴⁰Income refers to family income for persons in families and individual income for unrelated individuals.

to-poverty ratios.¹⁴¹ Such ratios change the relative standing of the three groups. The mean income-to-poverty ratio in 1987 was 3.26 for persons 65 and older and 2.67 for persons 75 years and over compared with 2.72 for persons under 18 years. Thus, when family size and economies of scale are considered, even though children tend to live in larger families than the aged, their economic status in terms of money income is similar to those 75 years and older.

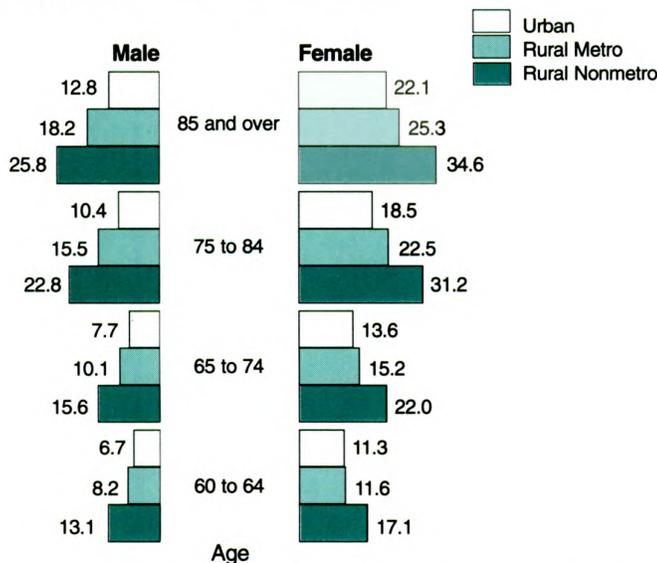
Short and Littman found that older people had stable incomes relative to young adults (18 to 24 years). Seventy-five percent of the elderly were in the same income quintile¹⁴² in both 1986 and 1987 compared with 62 percent of young adults and 69 percent of children under age 6. Young people were more likely to move up from the lowest quintile than the elderly. Only 6 percent of persons 65 years and over in the lowest quintile moved up to a higher quintile from 1986 to 1987. By contrast, 28 percent of young adults and 17 percent of children under age 6 moved to a higher quintile.

Elderly men and women were unlikely to change their economic situation between 1986 and 1987 (73 percent of men and 77 percent of women stayed in the same quintile; 8 percent of men and similarly, 7 percent of women increased one or more quintiles). There was also no real difference between elderly Whites and

¹⁴¹To account for economies of scale, family incomes have been adjusted by using poverty thresholds as an equivalence scale to adjust for differences in the size and composition of families. Short and Littman say, "Income-to-poverty ratios are useful for comparing the economic circumstances of different groups of persons, assuming that families share income and the economies of scale implied by the derivation of poverty thresholds are valid for all groups of persons." A complete discussion is provided by Short and Littman on p. 5 of their P-70, No. 18 report.

¹⁴²Income quintiles represent all people divided into five equal groups based on their family or individual income.

Figure 4-15. **Percent Poor in 1979 of Persons 60 Years and Over, by Age, Sex, and Residence: 1980**



Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Special Tabulations for National Institute on Aging (Summary Tape File 5A). Produced by Age and Sex Statistics Branch, Population Division.

Blacks (7.1 percent and 6.8 percent, respectively, improved their income enough to move up to another quintile; in the lowest income quintile, 6.2 and 8.3 percent, respectively, moved up).

Elderly and Children Least Likely Age Groups to Exit Poverty.

The Short and Littman report shows the elderly, along with children, were the least likely age groups to move out of poverty between 1986 and 1987. The exit rates were 16 percent for people aged 65 or older as well as for people aged 75 or older. For children under 18, it was 21 percent which was not significantly different from the elderly rate. By comparison, poverty tends to be a more transient condition for young adults (18 to 24 years) as they finish school and start new careers. The exit rate was 35 percent for young adults aged 18 to 24 years. The elderly had relatively low exit rates despite the fact that 72 percent of poor elderly in 1986 had an income-to-poverty ratio between 0.75 and 0.99 compared with 38 percent of poor young adults.

Household Wealth and Assets

Overall, the elderly have substantial assets, especially if the value of their homes are considered. From the 1980 census, there is evidence that assets increase with age up until the early eighties. Once the elderly spend their assets, however, they are less likely than younger people to be able to replace them. We will describe such trends in more detail below.

The Elderly Have Higher Asset Holdings Than Younger Households.

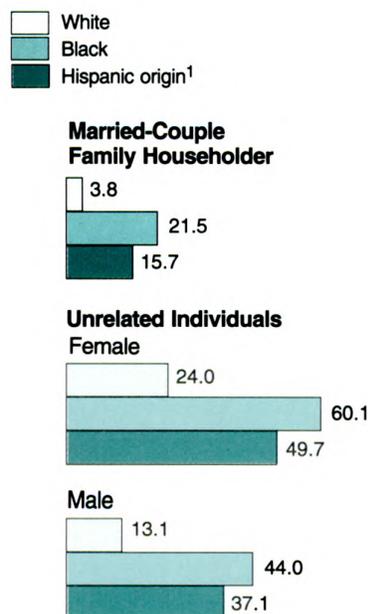
Economic well being includes both annual income and asset accumulation. The elderly have had longer to

accumulate assets. Their median net worth is twice as high as that of all households (\$73,471 and \$35,752, respectively, according to 1988 data from the Survey of Income and Program Participation). The home is the major asset, but for the elderly, interest earning assets were also important.¹⁴³

Ryscavage found that from 1984 to 1988, real median net worth for all households remained at about \$36,000. For the elderly, however, median net worth rose from \$68,600 to \$73,471 (in 1988 dollars). These

¹⁴³Ryscavage, op.cit., table 10, p. 14.

Figure 4-16.
Percent Poor in 1990 for Persons 65 Years and Over, by Race and Hispanic Origin: March 1991



¹Hispanic origin may be of any race.

Source: Mark Littman, U.S. Bureau of the Census, *Poverty in the United States: 1990*, Current Population Reports, Series P-60, No. 175. U.S. Government Printing Office, Washington, DC, 1991, table 5.

gains were not uniform, however, and occurred only for middle-and upper-income elderly. The gains occurred for those in the third and higher monthly income quintiles (quintiles are computed by ranking of all households on the basis of income and then dividing this distribution into five equal parts). Only about 17 percent of all elderly households fell in the third quintile and only 8 percent in the highest. Additionally, the increase was concentrated among married-couple households and those in which the householder was aged 70 to 74 years.¹⁴⁴

The life cycle hypothesis of saving says that assets increase during the life cycle and decline after retirement as savings are spent to finance daily life. Actually, assets are not reduced substantially until at least 10 or 15 years after retirement age according to data from the 1980 census and the Survey of Income and Program Participation (SIPP). It is logical that a newly retired person would avoid using savings (called "spend down" by economists) as long as possible given that most people are relatively healthy upon retirement but still face significant uncertainties about future health expenditures, their need for long-term care, and the length of their life. A 65-year-old woman, for example, would be wise to make plans to finance her life through at least the mid-eighties and include funding for long-term care. The young old also add to their asset base if they receive bequests upon the deaths of older relatives (which could be of increasing importance as more survive to the oldest ages).¹⁴⁵

Radner used the 1984 SIPP to show that overall, the elderly had lower

¹⁴⁴ibid., tables 10, 11, and pp. 14-15.

¹⁴⁵Barbara B. Torrey and Cynthia M. Taeuber, *The Importance of Asset Income Among the Elderly*, Review of Income and Wealth, Series 32, No. 4 (December 1986), pp. 443-449.

retirement income but higher wealth holdings than younger households. He also showed that many households have little or no wealth. Radner showed substantial dispersion in wealth within income, age, and marital subgroups.¹⁴⁶

Eargle used 1988 SIPP data to show that age is correlated with net worth because age offers an increasing opportunity to accumulate wealth (table 4-6). Because of SIPP's relatively small sample size, the final age category shown is 75 years and over. From the limited asset data available in the 1980 census, it appears that "asset spend down" generally does not begin until people reach their mid-eighties.¹⁴⁷ Eargle showed that home equity is a major asset to the elderly, especially for those in the lowest income quintiles. Even when home equity is excluded, the relatively higher assets of the elderly compared with younger age groups narrows but only slightly. When home equity was excluded, those 75 years and over had a net worth approximately six times that of those under age 35 (\$18,819 versus \$3,258 in 1988). When home equity was included, the 1988 median net worth of persons 65 years and over ranged from \$25,220 in the lowest income quintile (7.3 million households) to \$343,015 in the highest income quintile (1.5 million households). When home equity was included, median net worth of the elderly ranged from \$3,536 for the lowest income quintile to \$208,789 for the highest income quintile.¹⁴⁸

¹⁴⁶Daniel B. Radner, *Net Worth and Financial Assets of Age Groups in 1984*, Social Security Bulletin, Vol. 52, No. 3 (March 1989), pp. 2-15.

¹⁴⁷Torrey and Taeuber, *op.cit.*

¹⁴⁸The distribution of wealth is known to be highly concentrated. When the distribution is so concentrated, the normal SIPP sample frame, with few observations for high income households, has large variability in the various wealth statistics for this segment of the wealth distribution. For a description and comparison of survey aggregates with independent estimates, see appendix D of Current Population Reports, Series P-70, No. 22, *Household Wealth and Asset Ownership* by Judith Eargle of the U.S. Bureau of the Census.

Eargle's study also includes the composition of net worth. Home equity is the major asset for householders 65 years or older and represented about 40 percent of their net worth in 1988 (table 4-7). Second most important for elderly were interest-earning assets which represented 29 percent of net worth. Rental property and other real estate constituted 9 percent of net worth and stocks and mutual funds an additional 8 percent for the elderly (the percentages are not statistically different). Motor vehicles were only 3 percent of the net worth of the elderly compared with 16 percent for those under age 35.

Housing of the Elderly

Most Elderly Own Their Homes

There were 20.1 million householders in 1989 aged 65 or older. Three-fourths (76.2 percent), 15.3 million householders, were homeowners. Elderly householders who rented their home numbered 4.8 million in 1989. Seven in ten (71.1 percent) homes occupied by elderly householders were single-family homes. Six in one hundred (6.1 percent; 1,235,000 elderly householders) lived in mobile homes.¹⁴⁹

A report on housing occupied by elderly householders by Naifeh¹⁵⁰ used data from the 1989 American Housing Survey. She found that elderly Whites were more likely than elderly Blacks or Hispanics to be homeowners: 77.7 percent of Whites were homeowners compared with 63.4 percent of Blacks and 61.4 percent of Hispanics (the apparent difference

between Blacks and Hispanics was not statistically significant).

Housing of the elderly is basically sound. Only 3.4 percent of housing units occupied by the elderly had severe physical problems (675,000 units with such problems). Another 4.4 percent (885,000 units) had moderate problems. Most of the severe problems were because of plumbing (609,000 units). Most of the moderate problems were because of heating (568,000 units). Most of these units were in metropolitan areas (432,000 with severe problems; 525,000 with moderate problems) and the units with severe problems were evenly divided between inner city and suburbs. Elderly Blacks were somewhat more likely than elderly Whites to live in housing with severe physical problems (5.5 percent and 3.1 percent, respectively).¹⁵¹

Elderly householders tend to live in units that are more than 30 years old. The structures with severe or moderate physical problems tend to be older houses. The median year the structure was built for those with severe physical problems was 1949 compared with 1956 for all units occupied by an elderly householder. Only 3.5 percent of elderly householders lived in a unit built between 1985 and 1989.

Virtually all housing occupied by elderly householders has basic equipment and many units have clothes washing machines and dishwashers, air-conditioning, and other equipment that makes living more comfortable. Of the 20.1 million units occupied by elderly householders, only 207,000 lacked complete kitchen facilities (a sink, refrigerator, and burners). Complete plumbing facilities (hot

¹⁴⁹F. Mary Naifeh, U.S. Bureau of the Census, *Housing of the Elderly*, Current Housing Reports, Series H-121, forthcoming. U.S. Government Printing Office, Washington, DC, table 7-1 from the American Housing Survey file.

¹⁵⁰*Ibid.*, table 7-1.

¹⁵¹*Ibid.*, table 7-1; reasons problems are severe or moderate, see table 7-7.

Table 4-6.
Median Net Worth, by Age of Householder and Monthly Household Income Quintile: 1988
 (Excludes group quarters)

Monthly household income	Total	Age							
		Under 35 years	35 to 44 years	45 to 54 years	55 to 64 years	65 years and over			
						Total	65 to 69 years	70 to 74 years	75 years and over
All households (thousands) . . .	91,554	25,379	19,916	13,613	13,090	19,556	6,331	5,184	8,041
Median income	\$1,983	\$2,000	\$2,500	\$2,604	\$2,071	\$1,211	\$1,497	\$1,330	\$977
Median net worth	35,752	6,078	33,183	57,466	80,032	73,471	83,478	82,111	61,491
Excluding home equity	9,840	3,258	8,993	15,542	26,396	23,856	27,482	28,172	18,819
Net Worth by Income Quintile¹									
Lowest quintile									
Households (thousands)	18,299	4,642	2,270	1,630	2,467	7,290	1,800	1,647	3,842
Median net worth	\$4,324	\$652	\$848	\$2,803	\$16,545	\$25,220	\$23,679	\$28,880	\$25,291
Excluding home equity	1,152	448	441	897	1,541	3,536	3,055	3,058	4,474
Second quintile									
Households (thousands)	18,253	5,460	3,112	1,894	2,407	5,380	1,615	1,534	2,230
Median net worth	\$19,694	\$2,551	\$7,536	\$17,159	\$51,641	\$76,050	\$73,712	\$77,355	\$76,253
Excluding home equity	5,454	1,823	2,345	4,046	13,319	28,168	25,962	26,958	31,853
Third quintile									
Households (thousands)	18,378	6,186	4,007	2,325	2,480	3,380	1,356	924	1,100
Median net worth	\$28,044	\$6,440	\$20,008	\$38,295	\$84,627	\$141,811	\$122,848	\$142,501	\$159,032
Excluding home equity	8,418	3,393	5,045	9,082	27,627	57,026	47,032	57,022	77,922
Fourth quintile									
Households (thousands)	18,310	5,694	5,025	3,049	2,583	1,959	850	578	530
Median net worth	\$46,235	\$15,420	\$39,983	\$65,794	\$96,066	\$201,562	\$180,802	\$217,572	\$222,320
Excluding home equity	14,376	6,933	11,539	18,809	36,531	100,480	86,319	121,341	121,816
Highest quintile									
Households (thousands)	18,314	3,397	5,502	4,715	3,152	1,548	710	500	338
Median net worth	\$111,770	\$37,817	\$88,293	\$130,867	\$198,987	\$343,015	\$301,719	\$370,695	\$390,649
Excluding home equity	40,688	16,572	30,766	45,799	91,888	208,789	171,183	245,396	252,058

¹Quintile upper limits for 1988 were: lowest quintile—\$939; second quintile—\$1,699; third quintile—\$2,568; fourth quintile—\$3,883.

Source: Judith Eargle, U.S. Bureau of the Census, *Household Wealth and Asset Ownership: 1988*, Current Population Reports, Series P-70, No. 22. U.S. Government Printing Office, Washington, DC, 1990, table E.

pipled water, a bathtub or shower, and a flush toilet) were found in 97 percent of units occupied by elderly householders. Only 70,000 units had no access to a public sewer or septic tank, cesspool, or chemical toilet. Most units (76 percent) had a washing machine, 37 percent had a dishwasher, 97 percent had a telephone, and 69 percent enjoyed air-conditioning. Warm-air furnaces were the main source of heat in 52 percent of the units while it was portable electric heaters for 1 percent, stoves for 3 percent, and fireplaces for 0.7 percent. Only 83,000 elderly householders reported they had no main source of heat.¹⁵²

The elderly had a good opinion of their neighborhoods for the most part. On a scale of 1 to 10 (best),

Naifeh shows that 3 in 4 (75.8 percent) gave their neighborhoods a score of 8 or better. Most reported no problems with their neighborhoods (72.4 percent). Elderly householders with incomes below poverty were also satisfied (70.9 percent). Of the 5.3 million who reported a problem, 2.1 million said noise and traffic were a problem; 1.6 million thought people in the neighborhood were a problem; and 0.7 million felt crime was a major concern.¹⁵³

In his study of home ownership trends, Callis showed that elderly married couples are much more likely to be homeowners than are elderly women who live alone. In 1989, 9 in 10 (89.1 percent) married couples with a householder aged 65 or older owned

their homes compared with 6 in 10 (62.6 percent) elderly women who lived alone. Among homeowners aged 65 or older, the rate of homeownership is lowest after age 75 for both groups (figure 4-17).

Callis also revealed significant differences in homeownership by elderly in different areas of the country. In the South, 81 percent of elderly owned their homes compared with the Northeast where only 68 percent owned their own homes (figure 4-18).

Fronczek and Savage showed the ability to afford a median-priced home increases with age.¹⁵⁴ Only

¹⁵⁴Peter J. Fronczek and Howard Savage, *Who Can Afford to Buy A House?* Current Housing Reports, Series H-121/91-1. U.S. Government Printing Office, Washington, DC, May 1991, table 3. Data are from the Survey of Income and Program Participation. Affordability refers to whether the family or individual could qualify for the purchase of a median-priced home where they live with conventional fixed-rate, 30-year financing.

¹⁵²Ibid., table 7-4; table 7-7 for telephone.

¹⁵³Ibid., table 7-8.

Table 4-7.
Distribution of Net Worth, by Age of Householder and Asset Type: 1988
(Excludes group quarters)

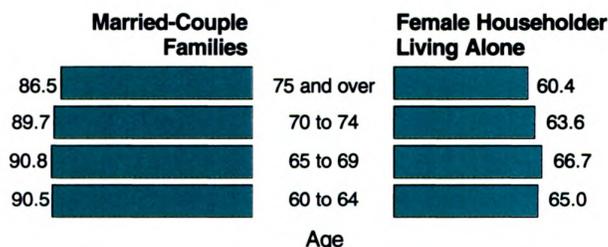
Type of asset	Total	Under 35 years	35 to 44 years	45 to 54 years	55 to 64 years	65 years and over
Total net worth	100.0	100.0	100.0	100.0	100.0	100.0
Interest-earning assets at						
financial institutions	14.1	10.8	9.0	9.4	12.0	22.4
Other interest earning assets	4.2	2.8	2.5	2.7	3.7	6.8
Checking accounts	0.6	1.2	0.6	0.5	0.5	0.5
Stocks and mutual fund shares	6.5	4.3	5.3	5.2	7.0	8.2
Own home	43.1	45.1	49.2	43.2	41.0	40.4
Rental property	7.9	6.8	6.7	11.3	8.0	6.7
Other real estate	4.3	5.2	5.2	4.9	5.0	2.6
Vehicles	5.8	15.6	7.6	5.7	4.7	3.1
Business or profession	8.8	14.6	12.0	11.9	9.4	3.0
U.S. savings bonds	0.6	0.5	0.4	0.4	0.8	0.6
IRA or KEOGH accounts	4.2	3.4	4.2	4.2	6.4	2.8
Other financial investments ¹	3.0	1.5	1.7	3.9	3.1	3.5
Unsecured liabilities ²	-2.9	-11.8	-4.3	-3.2	1.7	-0.5

¹Includes mortgages held from sale of real estate, amount due from sale of business, unit trusts, and other financial investments.

²Since net worth is the value of assets less liabilities, unsecured liabilities are subtracted from the distribution of net worth and are shown as negative.

Source: Judith Eargle, U.S. Bureau of the Census, *Household Wealth and Asset Ownership: 1988*, Current Population Reports, Series P-70, No. 22. U.S. Government Printing Office, Washington, DC, 1990, table G.

Figure 4-17.
Percentage of Homeowners, by Family Status and Age of Householders: 1989



Source: Robert R. Callis, U.S. Bureau of the Census, *Homeownership Trends in the 1980's*, Series H-121, No. 2. U.S. Government Printing Office, Washington, DC, December 1990, table 4.

27 percent of householders aged 55 to 64 and 30 percent of householders 65 years and over were unable to afford the median-priced home in their region in 1988. By contrast, almost half of the families with householders aged 35 to 44 could not afford the median home. About 60 percent of unrelated individuals aged 55 to 64 and 62 percent aged 65 or older could not afford the median home compared with 72 percent of unrelated individuals aged 35 to 44. Eighty percent of elderly renters would not be able to afford to buy a median-priced home in their region.

Naifeh's study establishes that elderly homeowners spend a smaller part of their income for housing than elderly renters do. Of the 15.3 million homeowners, 12.6 million owned their homes free and clear. Median monthly housing costs (including maintenance) in 1989 were \$515 for owners with a mortgage, \$210 for owners with no mortgage, and median rent was \$327. Median monthly housing costs as a percent of income were 29 percent for homeowners with a mortgage, 16 percent for homeowners with no mortgage, 36 percent for renters; for those

elderly householders with incomes below poverty, housing costs were 42 percent of income. Of the 15.3 million elderly homeowners, 14.6 million reported they did not share ownership with someone outside their home and 14.4 million reported no one outside the home helped pay the costs of owning their home (no statistical difference between 14.6 million and 14.4 million). The 1989 median value of homes owned by elderly householders was \$65,944; the median purchase price was \$18,039.¹⁵⁵

¹⁵⁵Naifeh, *op.cit.*, table 7-13; table 7-14 for value; table 7-15 for homes owned free and clear; table 7-19 for costs of homes with mortgages compared to those without mortgages.

Figure 4-18.
Percent Ownership of Homes for Persons 65 Years and Over, by Region of Country: 1989



Source: Robert R. Callis, U.S. Bureau of the Census, *Homeownership Trends in the 1980's*, Series H-121, No. 2. U.S. Government Printing Office, Washington, DC, December 1990, tables 6 through 9.