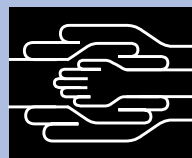


Demography Is Not Destiny



NATIONAL
ACADEMY ON AN
AGING SOCIETY

A Policy Institute of The Gerontological Society of America

Demography Is Not Destiny

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January 1999

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*Supported by a grant from The Commonwealth Fund, New York, New York.
The views presented here are those of the authors and not necessarily those of
The Commonwealth Fund, its directors, officers, or staff.*

Acknowledgments

Demography Is Not Destiny is the result of a collaborative effort. At the center of this collaboration was a group of experts brought together on three occasions to examine the issues raised by this project. We were extremely fortunate that Judith Feder of Georgetown University and Marilyn Moon of The Urban Institute co-chaired the Expert Working Group. The Working Group gave generously of their time and energy in a series of provocative exchanges. The Working Group examined each draft and offered insights into the ordering and interpretation of the data. It was the collective wisdom of this group of experts that enabled us to identify the critical findings from the reams of charts and the voluminous literature that served as the basis for this report. They helped us to organize the facts in a way that illuminates a very complex story.

Few people have the opportunity to think broadly and systematically about what the future might hold. We hope this report helps others broaden their perspectives on the complexities of demographic change and the resulting responses that affect us all. Through this process we have become optimistic about what the future might hold but more cognizant that the journey is not likely to be without serious challenges and difficult choices that will be made individually and collectively, community by community.

We are indebted to the Expert Working Group and very grateful to The Commonwealth Fund of New York, whose support made this effort possible. Brian Biles, M.D. and Susan Raetzman of The Commonwealth Fund provided project oversight and constructive suggestions.

We would also like to thank Kristen Kilker and Lee Shirey of the Academy staff as well as former staff Veena Pankaj and Sarah Pfau. We received assistance over the course of the project from interns Susanne Ross and Supavadee Chotikajan, and would like to thank them as well. Finally, we appreciate the editorial assistance provided by Diane Stamm and Felicity Skidmore.

Preface

Most people are familiar with the prediction that a crisis is looming because the number of elderly in the United States is growing and will soon overwhelm the Social Security and Medicare programs. The fact that demographic change is only one of many factors that will affect the solvency of these programs is less well known, however. Also, while federal entitlement programs receive a great deal of attention, other challenges and opportunities associated with the growth of the elderly population are often ignored.

This report is intended to provide a broad context for policy makers and those who comment on public policy matters as they consider the implications of an aging society. Data from a variety of sources are used to examine past and anticipated trends. In presenting the data, the complex interactions that occur among public programs, private institutions, and individuals are highlighted.

The report begins with an examination of demographic changes that have already occurred and that are likely to occur. A discussion of the importance of the economy follows. Economic growth has occurred in the past, despite the aging of society. Assuming economic growth continues, the public debate will essentially be about how to expend the additional wealth. The capacity of individuals and institutions to adapt is also explored. The data show that the elderly of today are different from their predecessors. The needs of tomorrow's elderly and the contributions they will make to society are likely to be different as well.

The report concludes with a discussion of policy options that can influence the future. Specific proposals to reform entitlement programs are not examined. Rather, the discussion emphasizes the role that public policy can play in helping society adapt to demographic change.

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When this Report uses the term elderly population, it means the U.S. population age 65 and older.

Chapter I

INTRODUCTION

That our population is aging is no news to most Americans. Media stories about the Census Bureau’s projection that the elderly population will more than double by the year 2040 abound—as do dire predictions about the collapse of Medicare and the Social Security system as a consequence.

What the media do not say is that planning for the future on the basis of demographic projections alone is a fool’s game. Demographic predictions are not necessarily “right.” Nor is demography the only major factor at work. Many other factors can be equally important. What is needed for wise policy planning is a close look at the whole range of influences on our future.

This report takes exactly such a look and yields the following major messages.

- Population projections are fraught with uncertainty. The Census Bureau, for example, has made a whole range of projections about the size of the U.S. population in 2040, the lowest and highest of which differ by 170 million people.
- Projections are, by definition, based on assumptions. They are conditional statements about what will happen, if and only if certain other things happen. As more information becomes available, the range of uncertainty narrows.
- The elderly population has already grown dramatically, both in size and as a proportion of the population, without devastating consequences. There are more than twice as many elderly today as in 1960. But the nation’s real national income has more than tripled during the same period, making us better off even though we have aged as a population.
- It is easier to make statements about the future based only on demographic predictions than on all the interactions among people, communities, and institutions. But, demography is not destiny. Other factors that also alter the course of the future include economic growth, changes in people’s expectations and behavior, and changes in public policies.
- Today is different from the past. The elderly of today are healthier, wealthier, and better educated on average than the elderly of any previous generation. This does not mean that all the elderly are doing well, however. Substantial inequality exists within the elderly population, with some groups among the elderly particularly vulnerable. If these disparities continue—or, worse still, grow—the future well-being of America’s elderly population generally could be threatened.

THE FUTURE IS MORE UNCERTAIN THAN COMMONLY ACKNOWLEDGED

Population projections are uncertain for all age groups. The Census Bureau projects that by 2040, the U.S. population could range anywhere from 288 million to 458 million. The number of people under age 65 in the year 2040 could range, similarly, anywhere from 229 million to 366 million. The wide range in population projections reflects differences in the assumptions made about three factors: mortality, fertility, and immigration. Projections are generally based on past trends, but a number of uncertainties are associated with each of these factors that make past trends a risky basis on which to project the future. Mortality trends, for example, depend on the outlook for diseases such as AIDS, which were unknown three decades ago and have had a profound effect on the population in a relatively short time. Immigration policy changes could have equally unanticipated effects on the population in the future.

Changes in the U.S. economy and society are also hard to foresee. Projections for today made in 1960, for example, probably would have not anticipated how many mothers of young children would remain in the labor force. They would also probably have been based upon assumptions about private pensions and health care plans that are no longer the norm. In 1960, for example, a pension plan was a defined benefit plan, not a defined contribution savings plan like a 401(k)-type plan. In 1960, virtually all health insurance coverage was first-dollar indemnity, managed care was virtually unknown, and Medicare did not exist. In 1960, personal computers, fax machines, and cellular telephones were yet to be invented. And health clubs were the domain of boxers, not white collar workers.

All these factors should make policy makers wary of enacting major changes based solely on anxiety about the increases in the number of elderly people.

THE ELDERLY POPULATION HAS ALREADY GROWN IN SIZE AND AS A PROPORTION OF THE TOTAL, WITHOUT DEVASTATING CONSEQUENCES

Since 1900 the number of elderly has doubled three times. Even since 1960 it has increased by more than 100 percent while the overall population has grown only 50 percent. But during the same time the nation's income (as measured by Gross Domestic Product) has increased over 220 percent.

Given that society has been aging for a very long time, demographic projections of an increasing elderly population were no secret to the policy makers who advocated and passed Medicare, Medicaid, the Older Americans Act, the Employee Retirement Security Act, or the expansions in Social Security. Yet since the 1960s,

the country has been able to establish, sustain, and benefit from all these programs. It is also true that dire predictions have been made in the past. For example, in the early 1980's it was common to presume that "Medicare is going to crash in the latter half of the '80s."¹ Ten years later, with relatively minor revisions, Medicare continues to provide health care coverage for the elderly.

ECONOMIC GROWTH MATTERS

Economic growth has made the nation more prosperous today than ever before and has enabled many to enjoy a higher standard of living than would have been possible a generation earlier. While income and wealth are not equally distributed among the population, most income groups have improved their lot over the years.

In contemplating the future, however, many wonder if the country will be able to support an aging society. Much of the concern relates to anxiety about federal entitlement program spending. The Commission on Retirement Policy predicts "rapid increases in entitlement spending...spiraling deficits...huge revenue needs...a burden on future generations."² The Bipartisan Commission on Entitlement and Tax Reform warns that "... the projected imbalance between spending and revenues—particularly with regard to health care and retirement entitlement programs—will, together with interest on the Federal debt, undermine America's capacity to make appropriate investments in the well being of our citizens and undertake other essential government functions, such as national defense."³

There is reason to be concerned about growth in expenditures, but there is more reason to be concerned about economic growth. With little economic growth society faces a significant challenge; with sufficient economic growth the challenge is considerably smaller. Small differences in economic growth today can make big differences later. GDP in 2030 will be nearly twice as large if average annual growth rates is three percent rather than one percent, for example. If the economy grows on average 2.8 percent per year between now and 2030, then projected government expenditures will be the same proportion of the economy in 2030 as today, even assuming substantial entitlement spending growth.

It would be foolish to assume society will simply grow its way out of the difficult choices that the aging of the population will bring. It would be equally foolish to assume that the future will be completely dismal if there is no radical restructuring of government programs.

¹ Peterson, P. *Roanoke Times and World News*, June 28, 1983.

² National Commission on Retirement Policy (January 1998). *Can America Afford to Retire? The Retirement Security Challenge Facing You and the Nation*. Washington, DC: Center for Strategic and International Studies.

³ Bipartisan Commission on Entitlement and Tax Reform. (1995). *Final Report to the President*. Washington, DC: U.S. Government Printing Office.

THE ELDERLY OF TOMORROW WILL BE DIFFERENT

Today's elderly are living in a manner that few could imagine a generation ago. They are better educated, healthier, and wealthier than the previous generation of elderly Americans. Future elderly are likely to be even better off and therefore they too will redefine "retirement" and "old age." The way people change will influence service and product markets, and public policy. The demonstrated capacity of all groups in society to adapt should be an important consideration for decision makers as they contemplate the future effects of current policies.

THE FUTURE ELDERLY WILL COVER A WIDE SPAN OF INCOME AND HEALTH NEEDS

Improvements for the elderly as a group should not blind us to the fact that certain segments of the elderly population remain very vulnerable. Older single women, for example, have particularly low incomes on average. There is also a substantial gap in educational attainment among baby-boomers. Since people with more education tend to have higher incomes and better health, this educational disparity virtually guarantees that tomorrow's elderly will be a diverse group. Current financial disparities can be expected to persist or grow. And large health and long-term care expenses can substantially drain the resources even of those elderly who previously, were relatively secure financially. Social insurance—in the form of Social Security, Disability Insurance, Unemployment Insurance, and Medicare—is designed to serve as a basis for the economic security of all workers and their dependents. Just as these programs have contributed to improvements for the elderly in the past, they will be an important source of support in the future, other things equal.

POLICY MATTERS

Population growth and change will affect society, but so will the policy choices we make. Policies that promote economic growth, redistribute income, influence individual behaviors, or even change the demographic profile of the population will all have impacts on the future.

Much of the concern over the anticipated growth in the elderly population is related to anxiety about federal entitlement program spending. Federal budget issues may be significant, but the federal budget is just one facet of the economy. Policy makers must not only evaluate the costs of programs like Medicare and Social Security, they must also consider the benefits these programs provide and what our world would be like without them.

With reasonable economic growth, projected government spending will not be substantially larger as a percent of national income than it is today. With less economic growth, tough choices—related to cutting benefits or raising taxes—will have to be made. But since there will certainly be some positive growth, the debate about future government spending comes down primarily to a debate on how to distribute the additional wealth in the economy.

Currently, much of the public discussion about an aging society involves how to finance Social Security and Medicare. Resolving this question will alter how much of the elderly's economic security in the future is financed publicly, but will do little to resolve all the questions raised by an aging society. Reducing the share of public support leaves individuals and their families responsible for a larger share of the costs but does not eliminate those costs. Families and local communities will still face a wide array of issues related to education, housing, social services, and transportation that will not be answered by entitlement reforms.

THE FUTURE WILL BRING CHALLENGES THAT REQUIRE CAREFUL ATTENTION NOW

Issues related to the aging of our society pale in comparison with the social, political, military and economic challenges our society has already faced over the past century. With little planning, society faced the birth of the baby-boom and has adjusted well to the consequences of large numbers of people moving through the schools, the labor force, and the housing, product, and financial markets.

Society now faces the movement of the baby-boom generation out of the labor force and into the realm of health care, long-term care, and claims on retirement income. Society can and will adjust as it has done before. But the adjustment will be easier if the challenges are addressed in a rational manner today. Although no one knows exactly what the future holds, undoubtedly difficult choices will be made—by individuals, families, private institutions, and policy makers. Recognizing the complexity of these issues allows such choices to be better evaluated before decisions are made. As policy makers decide on policies today, they must recognize that those policies will have to change as everything else changes, and build in enough flexibility to allow such changes to be made as the future becomes clearer.



Chapter II

THE DEMOGRAPHIC IMPERATIVE

The oldest baby-boomers are now in their early fifties, representing the leading edge of an anticipated tidal wave of future seniors. Conventional wisdom has it that, as baby-boomers age, the major increase in both the number and proportion of elderly will cause society to shift from one that promotes growth and innovation to one that is preoccupied with caring for dependent people—and that unprecedented numbers of Social Security and Medicare beneficiaries will overwhelm not only the retirement and health systems, but the federal budget as a whole. This sense of crisis may stem primarily from the notion that older people will account for a larger portion of the population. But that cannot be the whole reason for the anxiety, because the elderly population has already grown dramatically without devastating consequences.

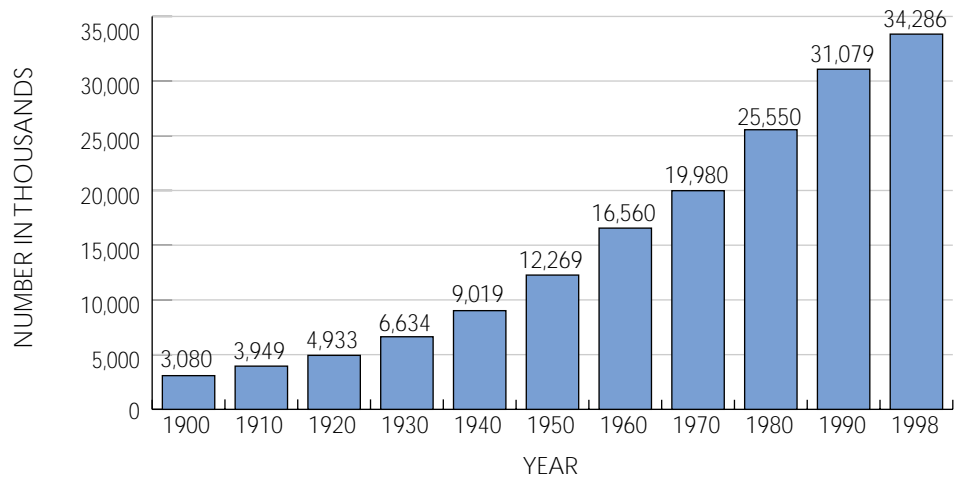
This chapter takes a close look at the numbers related to the aging of the U.S. population. It shows that:

- Population projections are by no means certain. They change as the assumptions on which they are based change.
- The “baby-boom” was not as large as is generally thought. Only the *additional* babies born because of the higher birth rate should be counted.
- The number of elderly people relative to people of working age in the population is predicted to be more than twice as large in 2040 as in 1960. But the number of *total dependents*—children and the elderly—relative to people of working age is predicted to be lower in 2040 than in 1960.

THE ELDERLY POPULATION HAS BEEN GROWING FOR A LONG TIME

The elderly population has been growing rapidly throughout the twentieth century. Since 1960, it has grown 107 percent, while the total population has grown only 50 percent.¹ But from 1960 to 1997 the nation's income, adjusted for inflation, increased 221 percent.² Thus, despite the growth in the proportion of elderly, overall standards of living have improved.

Figure 2-1: Growth in the Number of Elderly



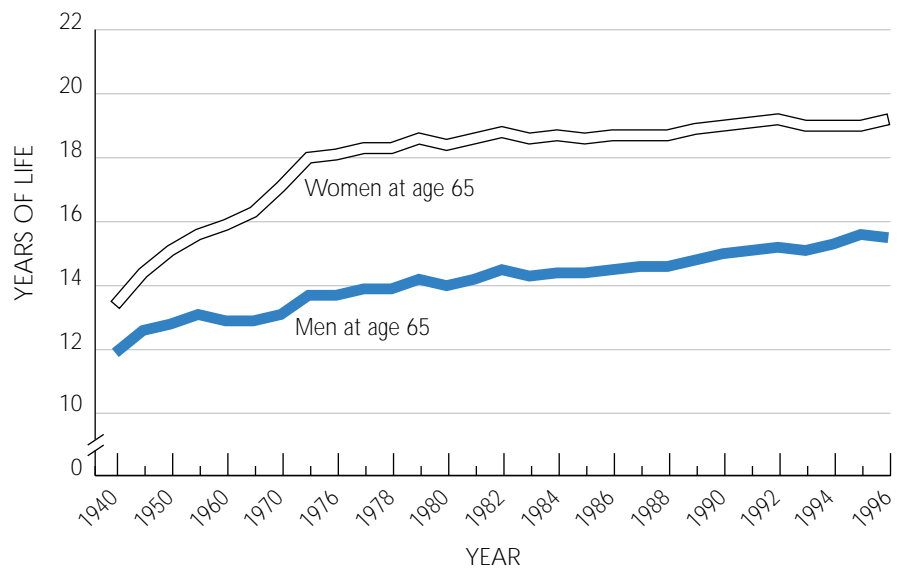
Source: U.S. Census Bureau, *65+ in the United States*. P23-190, Table 2-1, 1996.

Note: 1998 is a projection from U.S. Census Bureau, *Population Projections of the United States by Age, Race, Sex and Hispanic Origin: 1995 to 2050*, Table 2, 1996.

LIFE EXPECTANCY HAS INCREASED

Prior to the twentieth century, survival to a very old age meant living to age 50 or 60. Now it means living beyond age 95. Most people equate the aging of our society with increasing life expectancy among the elderly. Since 1940 life expectancy at age 65 has indeed increased—3.6 years for men and 5.8 years for women. But the elderly is not the only group living longer. There have been even more dramatic increases in life expectancy at birth—due in great part to reductions in infant mortality. Since 1940 life expectancy at birth has increased 11.2 years for men and 13.6 years for women.

Figure 2-2: Life Expectancy for Men and Women at Age 65



Source: 1997 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, Table II.D2.

Note: The life expectancy for any year is the average number of years of life remaining for a person if that person were to experience the death rates by age observed in, or assumed for, the selected year.

What will life expectancy be in the twenty-first century? Experts do not

¹ U.S. Census Bureau. (September 1975). *Historical Statistics of the United States: Colonial Times to 1970*. 93rd Congress, 1st Session. House Document No. 93-78 (Part 1).

² U.S. Bureau of Economic Analysis. (October 1998). *National Income Product Accounts*. Washington, DC: U.S. Government Printing Office.

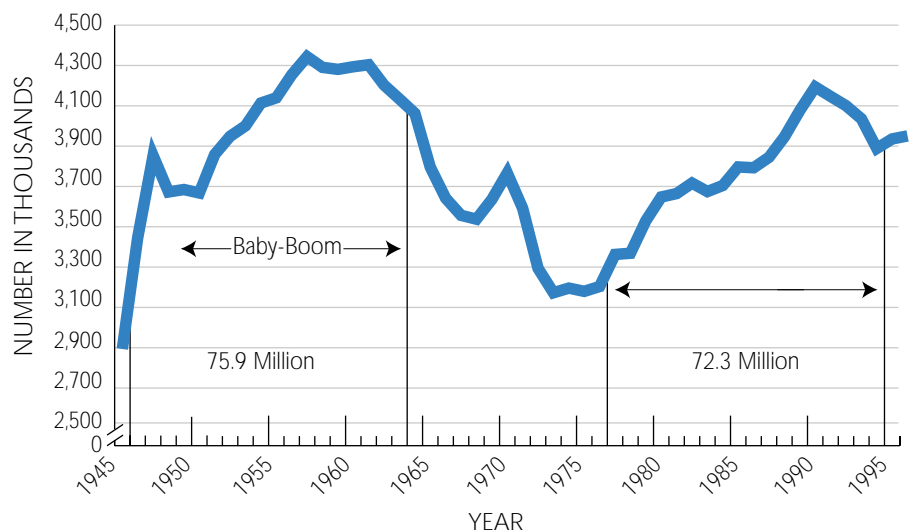
agree on the scale of the increase, though they do agree on the direction. Actuaries, biologists, biodemographers, demographers, and economists approach the measurement question differently and, thus, draw different conclusions—both about what is

driving death rate changes and about how much life expectancy will increase in the future. What they do agree on is that longevity will almost certainly increase, some taking Japan as a leading indicator. In Japan, at the beginning of the century, life expectancy was much lower than in North America and Europe. Today, life expectancy in Japan at birth is 82 years, longer than in all other developed nations—suggesting that life expectancy at birth in the United States could increase over the next century by another ten years.³

IN THE PAST 18 YEARS ALMOST AS MANY BABIES HAVE BEEN BORN AS DURING THE 18 YEARS OF THE BABY-BOOM

All this attention to the growth of the elderly population overlooks the fact that there will be growth in the non-elderly population as well. Baby-boomers had fewer children than their parents, but there are more parents now than ever. Hence, in the past 18 years, there have been almost as many babies born (72 million) as during the 18 years of the baby-boom (76 million).

Figure 2-3: Number of Live Births



Source: U.S. Census Bureau, *Historical Statistics of the United States: Colonial Times to 1970*, Series B-14, 1975.

National Center for Health Statistics, *Monthly Vital Statistics Report*, Vol. 45, No. 11(S).

HOW BIG WAS THE BABY-BOOM?

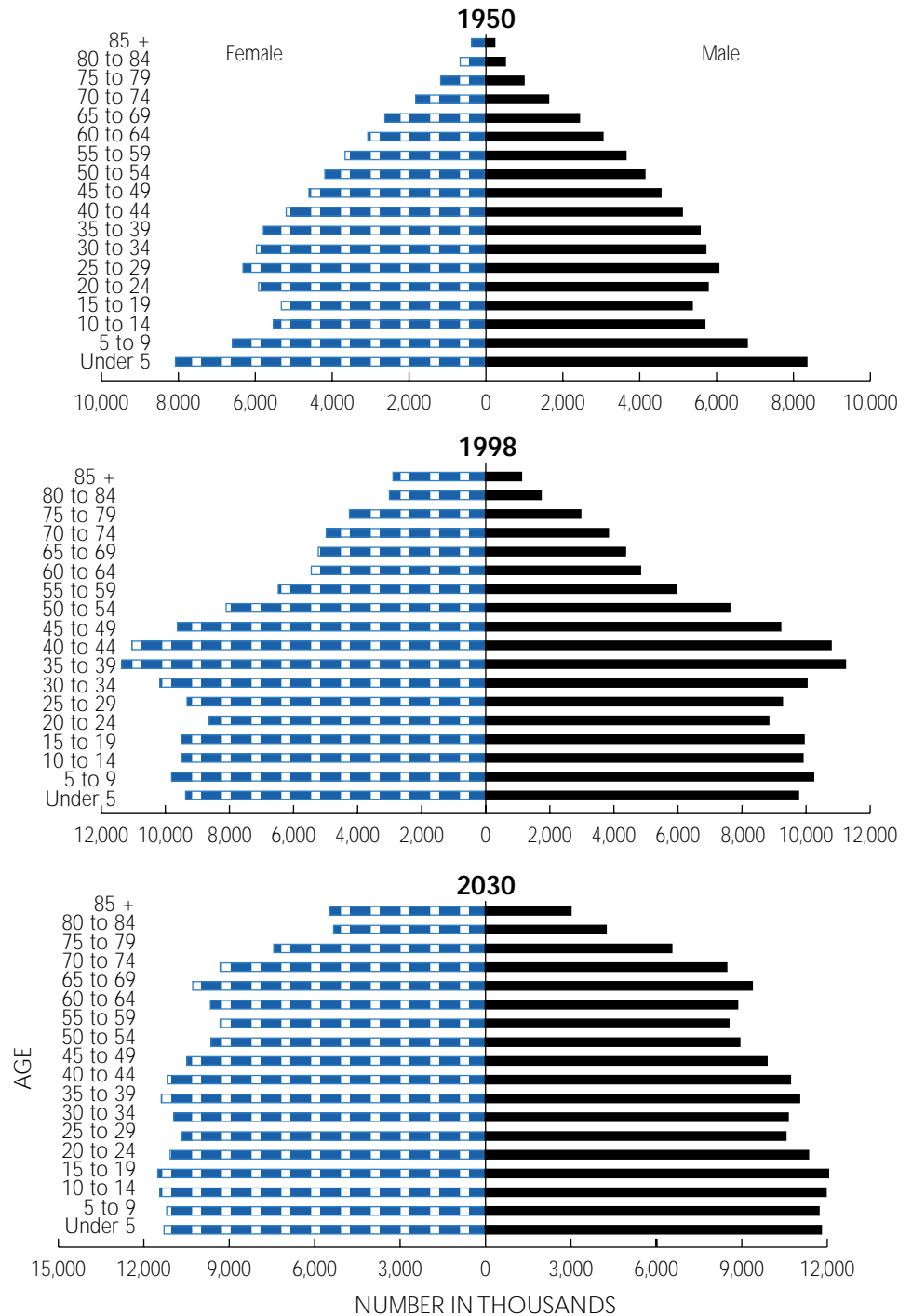
Many commentators talk about the 76 million baby-boomers as if no children would have been born in the absence of the baby-boomers. If fertility rates had remained at pre-World War II rates, there would still have been 64 million children born from 1946 to 1964. The real “baby-boomers” are the 12.3 million additional children born in these years.

³ Friedland, R. (October 1998). Life Expectancy in the Future: A Summary of a Discussion among Experts. *North American Actuarial Journal*, 2(4), 1-14.

THE POPULATION PROFILE WILL CHANGE

As the children of baby-boomers have children, the age pyramid will fill out. In 1950, each new generation was larger than the one that preceded it, except for those born in the depression. By 1998, the population distribution has already become less triangular, reflecting falling fertility rates after the baby-boom and during the 1970s. By 2030, when the baby-boom generation reaches age 65 and beyond, the triangle is expected to become a rectangle—indicating that the population will be more evenly distributed across generations than it has ever been.

Figure 2-4: Population Pyramids, 1950 to 2030



Source: 1950 data from U.S. Census Bureau. *Historical Statistics of the United States: Colonial Times to 1970*, Series A-119-134, 1975.

1998 and 2030 data from U.S. Census Bureau, *Population Projections of the United States by Age, Race, Sex, and Hispanic Origin: 1995 to 2050*. Table 2, 1996.

WHO ARE THE “DEPENDENTS” IN A SOCIETY?

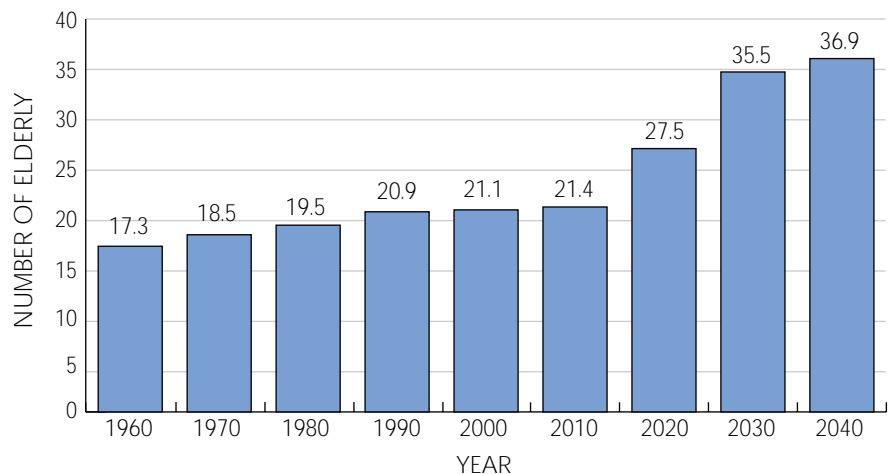
Dependency ratios compare some measure of the non-working age population (“dependents”) with the population that is of working age, as a quick gauge of the degree to which economic resources are likely to be diverted from those who are economically active to those who are not.

The number of Social Security and Medicare beneficiaries relative to the number of workers paying payroll taxes is the dependency ratio that most affects the financing of Social Security and Medicare. Hence, the dependency ratio that is examined most often is the number of elderly relative to the adult-age population. In 1960 there were 17.3 elderly people for every 100 people aged 20 to 64. By 1995, this number had increased to 21.4, and by 2040 it is projected to reach 36.9. In the context of the broader society, however, the growing ratio of elderly to people of working age has relatively little meaning by itself. The ratio is relevant to discussions about financing public programs, particularly when financing is primarily from current workers to current beneficiaries.

Dependency ratios provide only a limited view of the implications of an aging society. Not all people of working age are working, and not all people aged 65 and older have stopped working. And while work is an important source of payroll taxes, it is not the only activity that contributes to the economy.

Although many older people may not be working, many are still paying taxes.

Figure 2-5: Past and Projected Elderly per 100 Workers Age 20 to 64



Source: 1997 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance Disability Insurance Trust Funds, Table II.H1.

Note: Intermediate assumptions.

Many people not working are consuming goods and services they finance out of their own savings, thus helping provide workers with the opportunity to work. Many non-workers will also be investors and lenders of financial capital, and many will be volunteers who help their families or communities, providing services that help workers be more productive or services that would have been financed by workers if there were no volunteers.

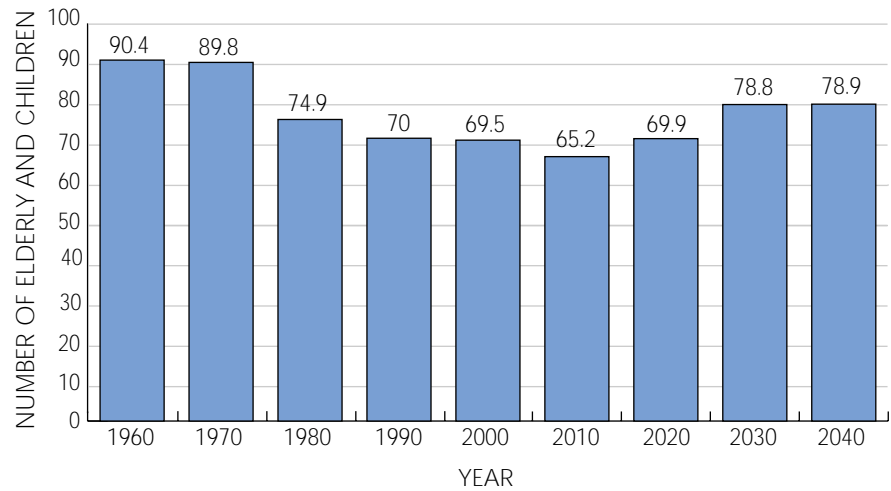
Another important consideration is that the increasing proportion of people aged 65 and older to the working-age population is neither new nor unexpected. In 1945, in the early days of the Social Security program, there were 41.9 contributing workers for every beneficiary. As the program and the elderly population grew, there was a huge decrease in the number of workers per beneficiary. By 1950, as a result, there were just 16.5 contributing workers for every beneficiary. The current ratio is 3.4 contributing workers for each beneficiary. By 2040, under the intermediate projections of the Social Security Trustees, the ratio of beneficiaries to workers is projected to decline to 2 contributing workers for every beneficiary. Over the years the program matured and was sustained in part by economic growth, and in part by incremental changes to the program. Economic growth and incremental program changes are likely to continue to play a part in sustaining the program. And, if the “pay-as-you-go” financing mechanism for Social Security and Medicare is altered, dependency ratios will have even less relevance in the future than they do today.

WHAT IF CHILDREN ARE INCLUDED IN THE DEPENDENCY COUNT?

Currently there are fewer children and elderly relative to people of working age than ever before. Although the ratio of total “dependents” to people of working age is projected to increase between now and 2040, it is not expected to grow as large as it was in the 1950s, 1960s, and 1970s. There were 90 people under age 20 or over age 65 for every 100 people aged 20 to 64 back in 1960.

There will be 65.2 “dependents” per 100 working-age people in 2010, and 80 by 2040.

Figure 2-6: Past and Projected Number of Dependents per 100 Workers Age 20 to 64



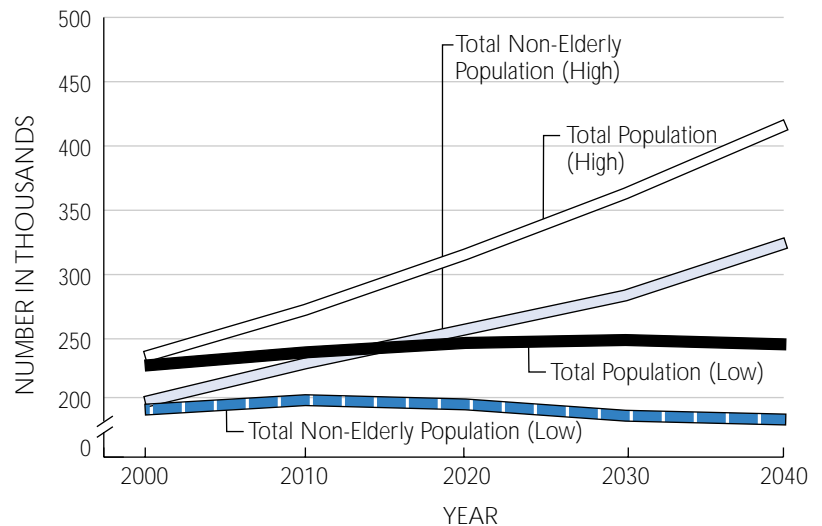
Source: 1997 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance Disability Insurance Trust Funds, Table II.H1.

POPULATION PROJECTIONS ARE UNCERTAIN FOR ALL AGE GROUPS

By 2040, the Census Bureau projects that the number of people could range from 288 million to 458 million. The number of people under age 65 in the year 2040 could range from 229 million to 366 million.

Changes in the age distribution of the population in the future will be accompanied by changes in other demographic characteristics as well. Older women continue to outnumber older men. As a result, women often find themselves alone with few financial resources other than, perhaps, a home. In recent years, however, women have not seen the significant decline in deaths from heart disease that have benefited men.⁴ If trends such as these continue, the gap in longevity between men

Figure 2-7: Population by Age: Alternative Census Bureau Projections



Source: U.S. Census Bureau, *Population of the U.S. by Age, Race, Sex, and Hispanic Origin: 1995 to 2050*, P25-1130, Table F, 1996.

and women may shrink, and with it some of the problems that older women face alone today.

⁴ Treas, J. (1995). Older Americans in the 1990s and Beyond. *Population Bulletin*, 5(2).

THE USE OF DIFFERENT ASSUMPTIONS MAKE POPULATION PROJECTIONS UNCERTAIN

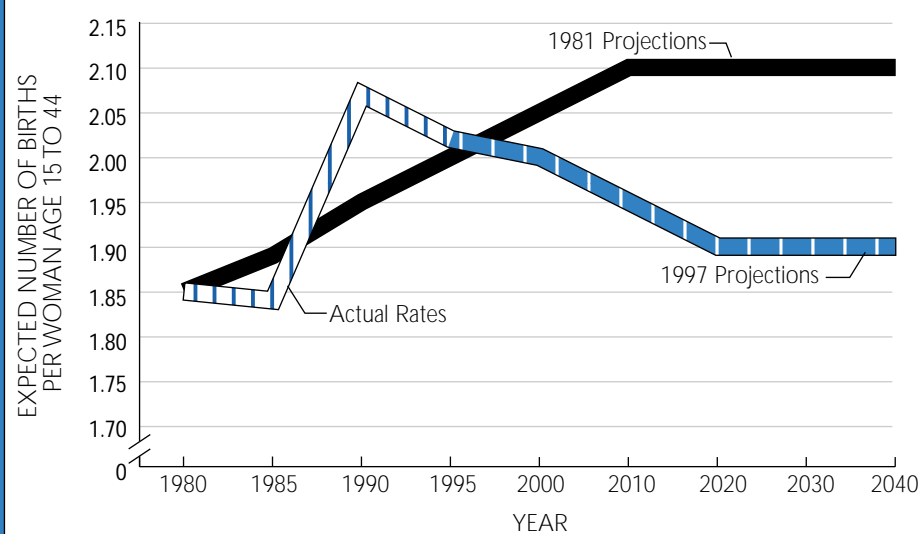
The wide range in population projections reflects differences in the assumptions made about three factors: mortality, fertility, and immigration. Uncertainties are associated with each of these factors. For example, while there have been improvements in life expectancy, emerging diseases pose new threats. Diseases such as AIDS, which were unknown three decades ago, have had a profound effect on the population in a relatively short time. Their future effect is uncertain. Known diseases may also pose threats if they become resistant to established medications or treatments. And the impact of a new pandemic, such as a new strain of flu, could be significant.

Another important consideration related to predicting life expectancy is possible changes in the life span itself. Advances in biomedical and genetic engineering may even alter the maximum time people are biologically able to live if nothing kills them except the aging process.

The aging of society stems from two trends: improvements in life expectancy (especially among infants) and declines in fertility.¹ Even if there were no improvements in life expectancy, the decline in fertility alone would lead to the aging of the population.² Fertility rates are sensitive to a multitude of factors—including particular events, social attitudes, family structure, women's workforce participation and earnings, and overall economic conditions.

Technological changes—such as the availability of different types of birth-control methods—also affect fertility. Population projections are based on past fertility rates. Thus, they cannot reflect the impact of changes in individual expectations, economic circumstances, and the broader society. For example, actual fertility rates between 1980 and 1995 fluctuated more than predicted—a fluctuation that probably played a large role in the revised projections for future years.

Figure 2-8: Projections Change Over Time



Source: 1997 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds.

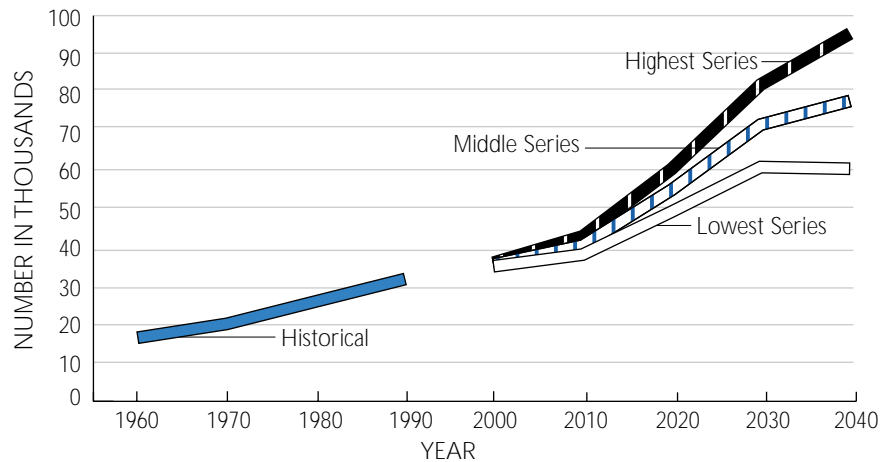
¹ Friedland, R. (October 1998). Life expectancy in the future: A Summary of a Discussion among Experts. *North American Actuarial Journal*, 22(4), 1-14.

² Binstock, R. & George, L. (1990). *Handbook of aging and the social sciences*. (3rd ed.) San Diego, CA: Academic Press.

THE NUMBER OF FUTURE ELDERLY CANNOT BE KNOWN WITH CERTAINTY

Depending on the assumptions made concerning future mortality and immigration rates, the Census Bureau estimates that the number of elderly in 2040 may be 59 million or 92 million—a difference of 33 million people.

Figure 2-9: Past and Projected Population Age 65 and Older

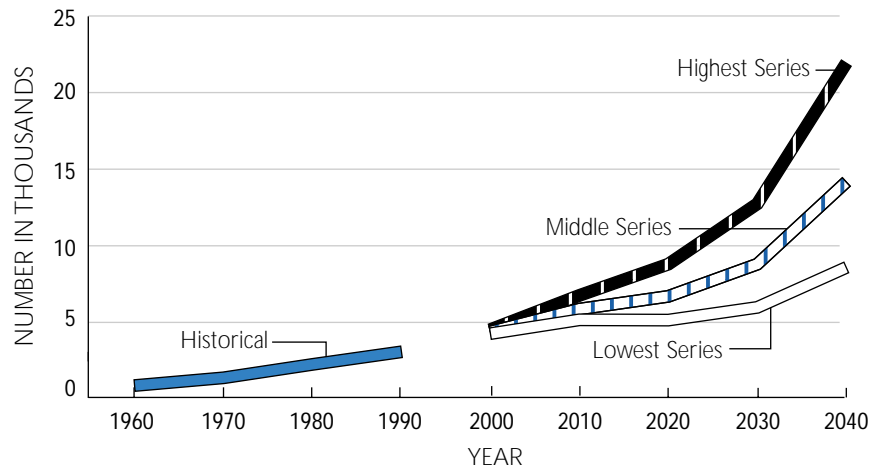


Source: U.S. Census Bureau, *Population Projections of the United States by Age, Race, Sex, Race, and Hispanic Origin: 1995 to 2050*, P25–1130, Table F, 1996. U.S. Census Bureau, *65+ in the United States*, P23–190, Table 2-1, 1996.

PROJECTIONS FOR THE OLDEST ELDERLY ALSO VARY SUBSTANTIALLY

Population projections for the oldest elderly (age 85 or more) vary even more dramatically. By 2040 there may be anywhere from 8.3 million to 20.9 million people age 85 or older—a difference of 12.6 million.

Figure 2-10: Past and Projected Population Age 85 and Older

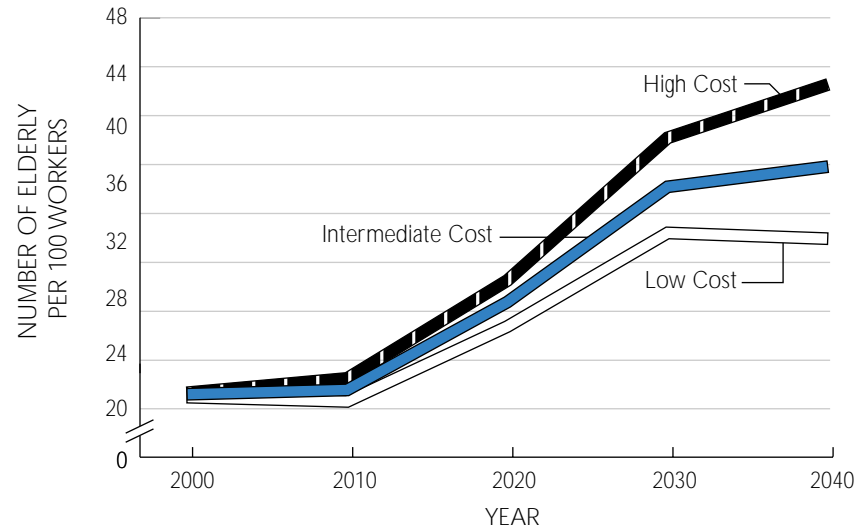


Source: U.S. Census Bureau, *65+ in the United States*, P23–190, Table 2-1, 1996. U.S. Census Bureau, *Population of the U.S. by Age, Race, Sex, and Hispanic Origin: 1995 to 2050*, P25–1130, Table F, 1996.

THERE IS UNCERTAINTY REGARDING THE FUTURE NUMBERS OF BOTH ELDERLY AND NON-ELDERLY PEOPLE OF WORKING AGE

Given the uncertainty of population projections generally, it is not surprising that projections of the elderly dependency ratio (the ratio of the elderly population to the working age population) vary. Most social insurance programs, like Social Security, are financed primarily by a fixed tax rate on current workers. As a result, the financial status of social insurance programs for the elderly is determined in large part by the elderly dependency ratio. Thus, variations in the dependency ratio help explain why the Social Security Trustees project that the OASDI Trust Funds could either be depleted over the next 25 years or remain solvent for another 75 years.

Figure 2-11: Number of Elderly per 100 Workers Age 20 to 64: Three Projections



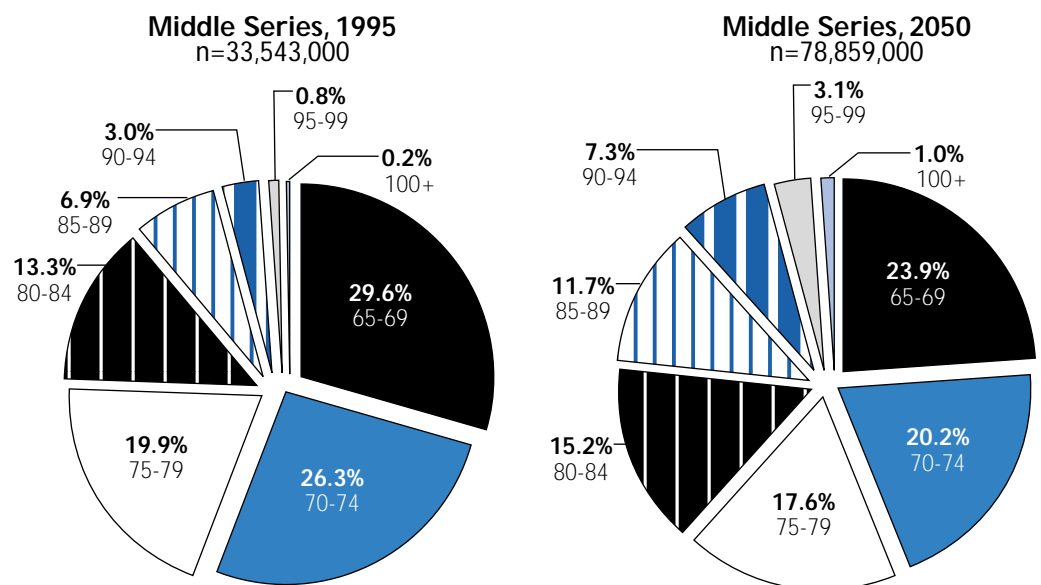
Source: 1997 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, Table II.H1.

Note: These three projections are based on values relating to future trends in certain key factors that affect the balance in the Social Security Trust Funds. The "low cost" set assumes relatively rapid economic growth, low inflation, and favorable demographic conditions. The "intermediate" set of assumptions represents the Social Security Trustees' "best estimates" of likely future economic and demographic conditions. The "high cost" set assumes slow economic growth, more rapid inflation, and financially disadvantageous demographic conditions.

THE ELDERLY POPULATION IS PROJECTED TO GROW OLDER

Currently, the "oldest" elderly (those 80 years of age and over) constitute almost one quarter—24 percent—of the elderly population. By 2050 the Census Bureau's intermediate projections indicate that this share is expected to rise to about 38 percent. From 1995 to 2050, however, while the elderly population is projected to more than double, the proportion age 80 and older will increase 225 percent and the proportion age 65 to 79 to 90 percent.

Figure 2-12: Elderly Population Projections by Age, 1995 and 2050



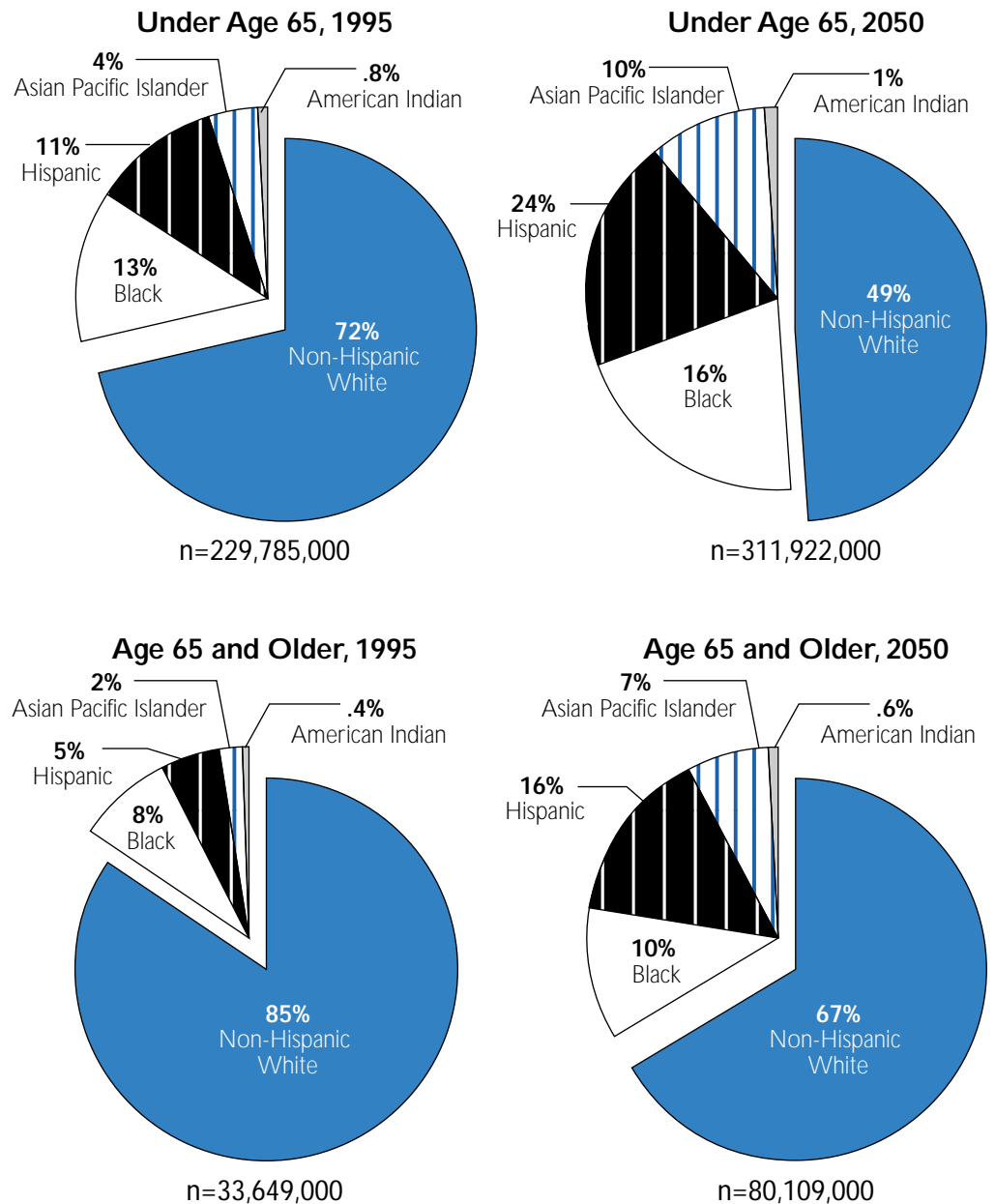
Source: U.S. Census Bureau, *Population Projections of the United States by age, sex, race, and Hispanic origin: 1995 to 2050*, Table 2, 1996.

THE POPULATION MAY BE MORE RACIALLY AND ETHNICALLY DIVERSE

Minority populations will be increasing proportions of the elderly and the non-elderly populations. African-American, Asian, and Hispanic populations are all increasing more rapidly than the non-Hispanic white population because of both higher birth rates and higher immigration rates. Non-Hispanic whites made up 85 percent of the elderly population in 1995, a share that is projected to slip to 67 percent by 2050. Non-Hispanic whites made up nearly three-quarters (72 percent) of the non-elderly population in 1995, a share that is projected to slip to just under half (49 percent) in 2050. Over the same period, the Hispanic proportion of the elderly population is expected to triple (from 5 percent to 16 percent). And the Hispanic proportion of the non-elderly population is projected to more than double over the next 55 years (from 11 percent to 24 percent).

Since racial gaps in life expectancy have remained constant over the past several decades—with life expectancy for African-Americans six to eight years lower than for whites—improvements in life expectancy are not expected to contribute significantly to racial and ethnic diversity among the elderly.

Figure 2-13: Racial and Ethnic Composition of the Population, 1995 and 2050



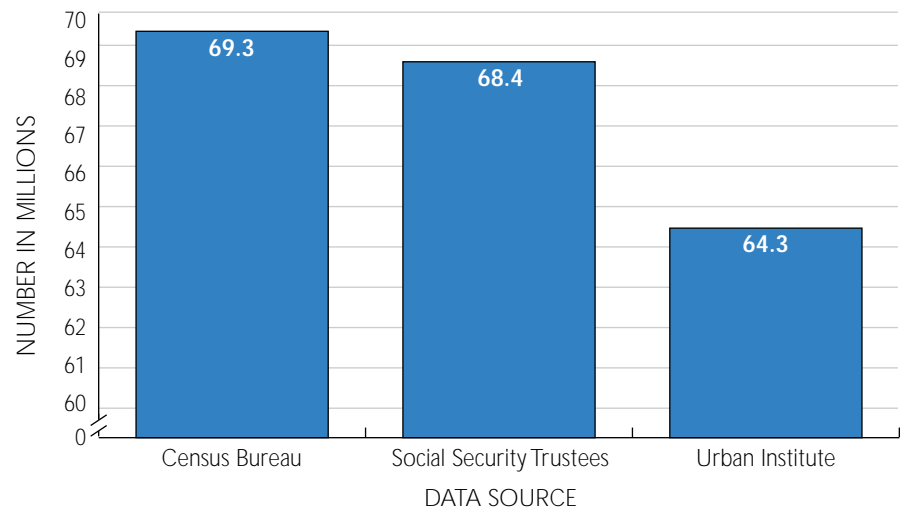
Source: Treas, J., Older Americans in the 1990s and Beyond. *Population Bulletin*, 50 (2).

WHAT'S THE DIFFERENCE?

Population projections typically include a high, middle, and low estimate. The figure compares the middle estimates for the year 2030 from three sources. Even this comparison, selected to minimize the variation, shows a difference of about 5 million people between the highest middle series estimate (from the Census Bureau) and the lowest (from The Urban Institute.) Social Security Administration actuaries estimate that under current law, the average annual Social Security benefit in 2030 will range from \$11,030 to \$24,018 in 1998 dollars (depending on whether the beneficiary had been a low-wage or a high-wage worker). If we assume the same relative income distribution of lifetime wages among future retirees as among current workers, a difference of plus or minus 5 million elderly implies a difference of about \$76 billion dollars in potential Social Security benefits (in 1998 dollars).¹

¹ Calculations assume three percent inflation.

Figure 2-14: The Elderly Population in 2030: Three Projections



Source: U.S. Census Bureau, *Population Projections of the U.S. by Age, Sex, Race, and Hispanic Origin: 1995 to 2050*, P25-1130, Table F. 1997 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds.

Zedlewski, S. & McBride, T., "The Changing Profile of the Elderly: Effects on the Future Long-Term Care Needs and Financing," *The Milbank Quarterly*, Vol. 70, No. 2, 1992.

Chapter III

ECONOMIC GROWTH MATTERS

Overall economic well-being in the United States is greater today than ever before. In contemplating the future, however, many people wonder if the country will be able to support an aging society. Much of this concern is related to anxiety about federal entitlement program spending. More elderly people will result in more claims against Social Security and Medicare. Without dramatic changes in the way long-term care is financed, more elderly are also likely to mean more claims on Medicaid for long-term care. Medicaid expenditures for elderly with few resources will also grow. The rising number of beneficiaries means more expenditures in absolute terms. But how burdensome the increased expenditures may be in the future depends on how the costs stack up in the context of the broader economy.

This chapter examines the role economic growth could play in the future. Among the findings:

- The U.S. economy has grown throughout the country's history, whatever the rate of population growth.
- Younger people in the future are likely to be wealthier than younger people of today, even though there are likely to be some transfers from younger people to older people.
- Most of the discussion about future government spending is ultimately about how to distribute the additional wealth of the nation.
- The future financing of federal entitlement programs poses a huge challenge if there is little or no economic growth. But if real economic growth averages 2.8 percent a year, projected government expenditures in 2030 will be the same proportion of GDP as today and the fiscal challenges of projected demographic change will be manageable.
- Small differences in economic growth now make big differences later on. GDP in 2030 will be nearly twice as large, for example, if annual growth rates average three percent rather than one percent.

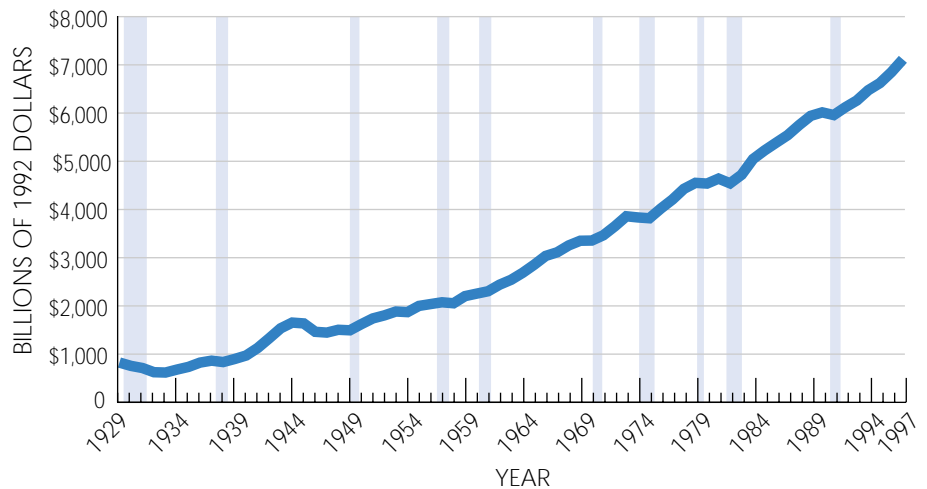
ECONOMIC GROWTH HAS ENABLED MANY PEOPLE TO ENJOY A HIGHER STANDARD OF LIVING THAN WOULD HAVE BEEN POSSIBLE A GENERATION EARLIER

From 1940 to 1958 the size of the U.S. economy (in real terms) doubled. It doubled again in the next 20 years. Since 1978, the economy has increased over 60 percent, not as fast as after World War II, but fast enough to increase living standards substantially.

Advances in technology have done a lot to make this happen by significantly changing the quality of life. Many of today’s “necessities”—personal computers, facsimile machines, cellular telephones—were either luxuries or fantasies of science fiction just a few years ago. Even the rich could not get fresh fruits and vegetables year-round until relatively recently. And many older people can vividly remember when telephones were rare, when televisions did not exist, and when indoor plumbing was the exception in much of the country.

Along with general improvements in standards of living have come improvements in health care standards. Advances in medicine have made it possible to treat diseases—such as high blood pressure, high cholesterol, pneumonia—for which there were no cures 25 to 50 years ago. Prescription drugs and new noninvasive surgeries are now used to treat conditions that would have required major surgery in years past. Advances in preventive care have made it possible to diagnose and treat conditions earlier. And, changes in the workplace have helped reduce the rate of death from accidents, although not accident rates themselves.

Figure 3-1: Real GDP from 1929 to 1997



Source: Bureau of Economic Analysis, *National Income Product Accounts*, October 1998.

Note: Shaded areas represent recessionary periods.

HISTORICALLY, REAL RATES OF ECONOMIC GROWTH HAVE VARIED

Table 3-1: Real Economic Growth Rates by Decade

| Decade | Real Growth Rate |
|-----------|------------------|
| 1930s | 2.1% |
| 1940s | 5.0% |
| 1950s | 3.5% |
| 1960s | 4.5% |
| 1970s | 3.4% |
| 1980s | 3.0% |
| 1990-1997 | 1.9% |

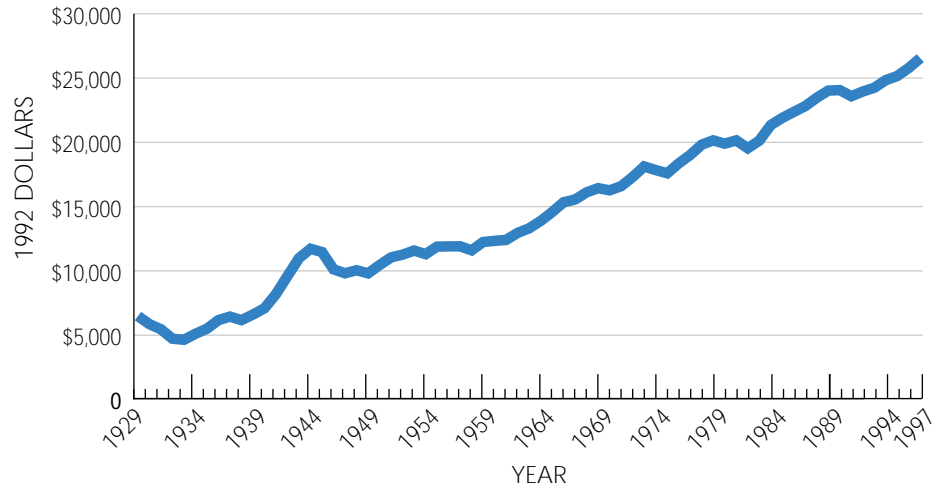
Source: Calculations based on the Bureau of Economic Analysis (website).

The 1990s, which began with a relatively severe recession, are likely to be the decade with the lowest rate of real economic growth since 1929. Except for the 1990s and the 1930s, average annual real economic growth in this country has exceeded three percent throughout the twentieth century. Average annual rates of real economic growth exceeded five percent in the 1940s and four percent in the 1960s. No one knows what the magnitude of economic growth will be over the next three decades.

ECONOMIC GROWTH HAS OCCURRED DESPITE POPULATION GROWTH

From 1960 to 1997, the population of the United States grew about 50 percent, the number of elderly doubled and the number of workers nearly doubled—increasing by 97 percent from 65.8 to 129.6 million.¹ The country's ability to absorb a doubling of the elderly population since 1960 and still raise its living standards is related in good part to general economic growth since then. Real per capita GDP has increased steadily between 1950 and 1997—from \$10,600 to \$27,200.

Figure 3-2: GDP Per Capita

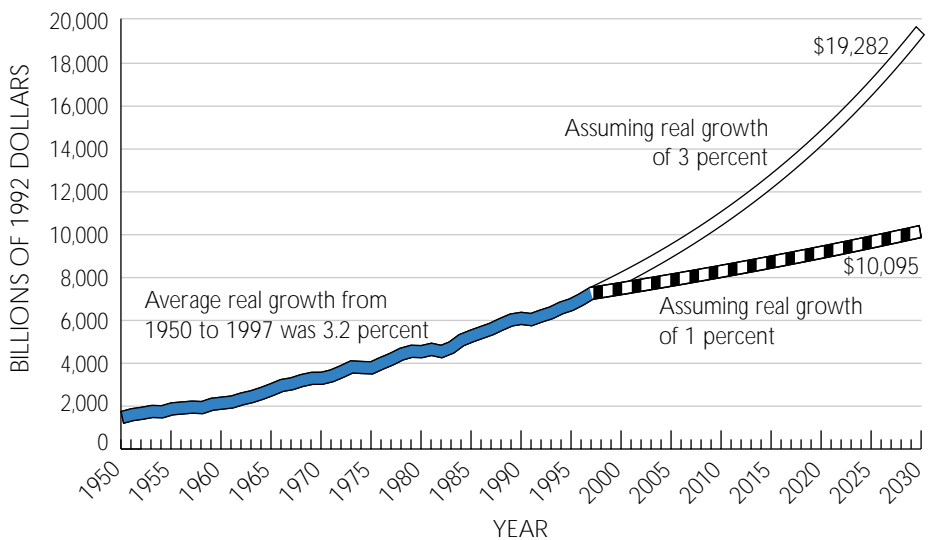


Source: www.census.gov/population/estimates/nation/popclockest.txt, October 1998. Bureau of Economic Analysis, *National Income Product Accounts*, October 1998.

SMALL DIFFERENCES IN GROWTH MAKE A BIG DIFFERENCE

How fast will the U.S. economy grow between now and 2050? Experts do not agree.² The Clinton Administration's Council of Economic Advisors assumes about 2.3 percent a year on average. The Congressional Budget Office (CBO) assumes 1.5 percent a year. Even with average economic growth of only 1 percent a year, real GDP in 2030 will be over \$10 trillion (in 1992 dollars) or \$28,827 per person. Economic growth of 3 percent a year would result in a GDP almost twice as large, \$19.3 trillion (in 1992 dollars) or \$55,635 per person.

Figure 3-3: Past and Projected Real GDP



Source: Bureau of Economic Analysis, *National Income Product Accounts*, October 1998 and NAAS calculations.

¹ U.S. Census Bureau. (September 1975). *Historical statistics of the United States: Colonial Times to 1970*. 93rd Congress, 1st Session. House Document No. 93-78 (Part 1).

² Blinder, A. (1997). The Speed Limit: Fact and Fancy in the Growth Debate. *The American Prospect*, 34 (September/October), 57–62.

WITH LITTLE ECONOMIC GROWTH, SOCIETY FACES A HUGE CHALLENGE; HIGHER GROWTH REDUCES THE CHALLENGE

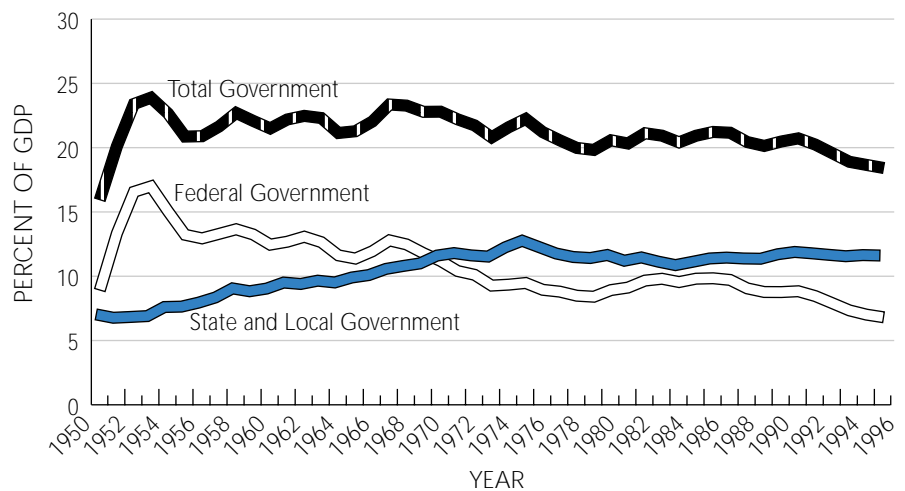
Little or no economic growth will confront society with a huge challenge in financing federal entitlement programs—and the difficult choice of either cutting promised benefits or raising tax rates in the face of slowing or even declining standards of living. With higher economic growth, however, incomes and tax revenues at

current tax rates will rise, making the fiscal challenge associated with demographic changes more manageable. With modest economic growth, future choices will be about distributing resources from a larger national income. A quarter of a pie can be relatively large or small depending on the size of the pie. If our economic pie is bigger, then what was once financed from 10 percent of the pie may only need 5 percent of the pie. It would be foolish to assume that society can simply grow its way out of any difficult choices. But it would be equally foolish to assume that radical restructuring of government programs is the only solution.

DESPITE POPULATION GROWTH, GOVERNMENT EXPENDITURES HAVE NOT INCREASED FASTER THAN ECONOMIC GROWTH

With the exception of World War II and the Korean War, GDP has grown faster than government spending throughout the twentieth century. As a result, federal government expenditures as a percentage of GDP have either declined or remained fairly constant since 1950. Federal government expenditures have declined as a percentage of GDP since 1990, although state and local government expenditures as a percentage of GDP have increased.

Figure 3-4: Federal, State, and Local Government Expenditures as a Percentage of Gross Domestic Product



Source: Bureau of Economic Analysis, *Survey of Current Business*, August 1997.

CHANGES IN SPENDING AT ONE LEVEL OF GOVERNMENT CAN INFLUENCE SPENDING AT ANOTHER

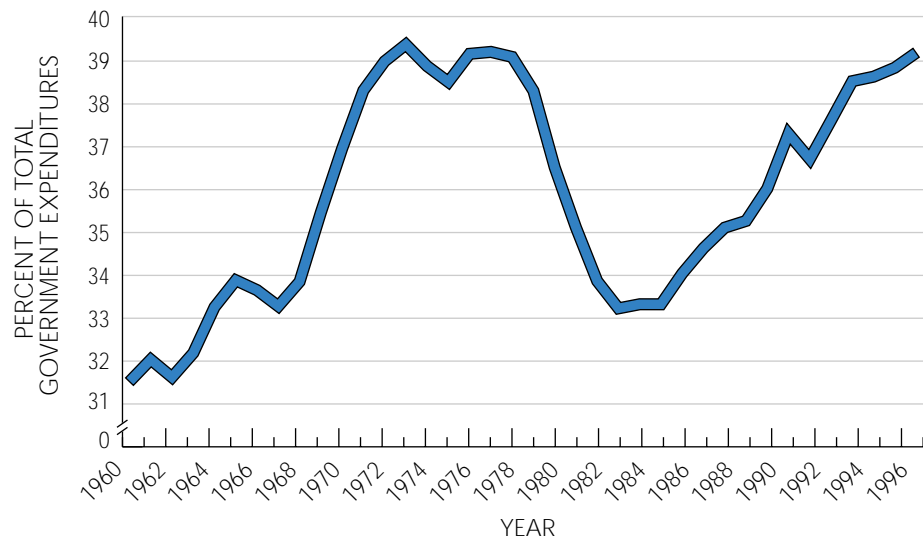
Spending decisions at one level of government are likely to affect the spending at another. Decisions about federal financing of education, health care, and welfare, in particular, have a direct impact on state and local government spending in the same areas. Although federal spending on education has not declined, for example, the federal share of education financing has generally declined. Since the

number of students in elementary education has continued to increase, this has generally meant that education funding has been financed increasingly by state and local governments.

Starting in about 1963 and continuing through the mid-1970s, state and local government spending increased faster than the growth in federal spending, despite the federal “war on poverty” and the Vietnam War. To some extent these changes reflected the efforts of state and local governments to meet the needs of the baby-boomers as they aged into and through the school system. In the late 1970s through the mid-1980s, however, federal expenditures increased faster than state and local expenditures and therefore the relative share of government expenditures from state and local government declined.

Since 1986, when baby-boomers ranged from 22 to 40 years of age, federal spending as a percentage of total government expenditures has declined while state and local government spending has increased. This suggests some shifting of responsibility among the different levels of government, as well as growth in the school-aged population—the children of the baby-boomers. In 1960, state and local government spending represented 32 percent of total government spending. Today, it is closer to 40 percent.

Figure 3-5: State and Local Government Expenditures as a Percentage of Total Government Expenditures

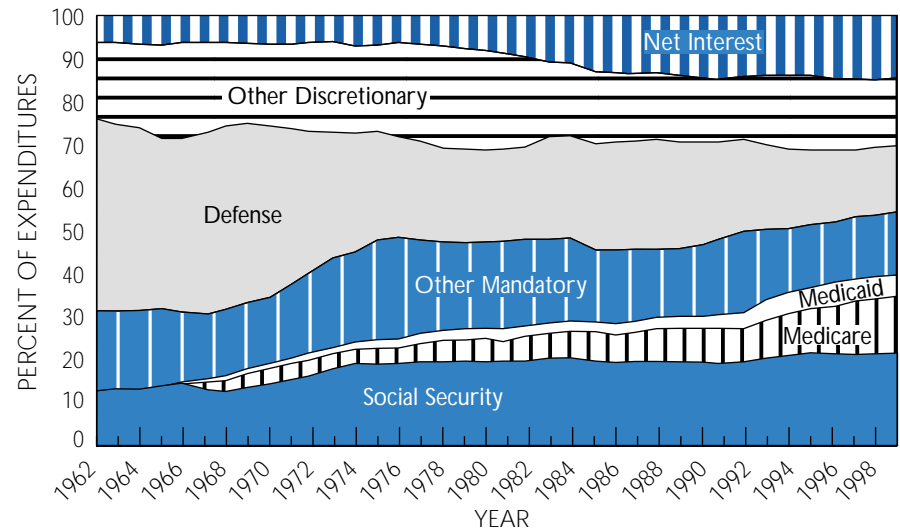


Source: Council of Economic Advisors, *Economic Report of the President*, February 1998, Table B-83.

THE COMPOSITION OF THE FEDERAL BUDGET HAS CHANGED

Public expenditures on programs for which the elderly are significant beneficiaries have increased, while the proportion of the budget going towards national defense has declined. In 1962, defense outlays equaled 49 percent of the federal budget. They remained near 45 percent through the late 1960s, but have plummeted since then, to 16.3 percent of the federal budget in 1998.³

Figure 3-6: Federal Expenditures, 1962 to 1998



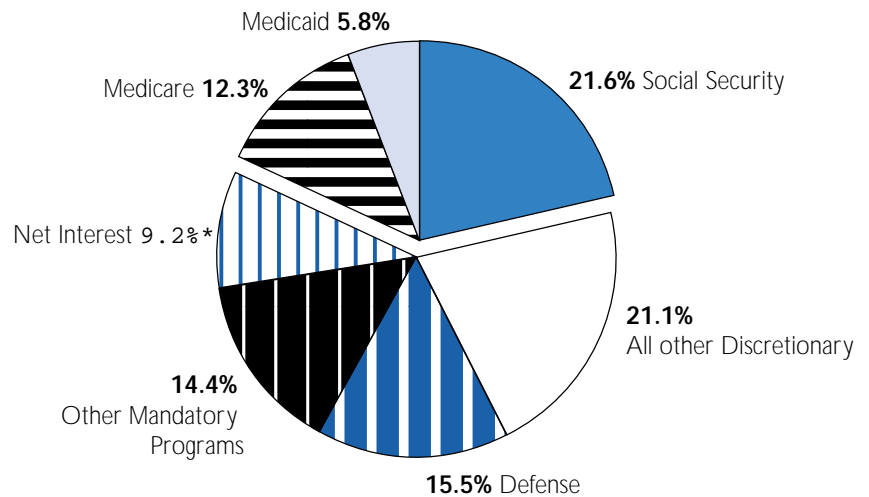
Source: Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1999–2008*, Tables E-8, E-10, E-12.

ENTITLEMENT PROGRAMS NOW ACCOUNT FOR OVER 40 PERCENT OF THE FEDERAL BUDGET

Federal financing of Social Security, Medicare, and Medicaid accounts for 40 percent of overall federal spending. Some 87 percent of Social Security benefits are paid directly to the elderly and 87 percent of Medicare payments are made on their behalf.⁴ In the case of Medicaid, although only 11 percent of beneficiaries are elderly, 26 percent of Medicaid expenditures go toward their care.⁵

Figure 3-7: The Federal Budget, 1998

Total Federal Spending = \$1,738 Billion



Source: Congressional Budget Office, *The Economic and Budget Outlook: An Update*, August 1998, Tables 2-4, 2-5, 2-6.

*Net interest does not include offsetting receipts. Offsetting receipts is included in All other Discretionary.

³ Congressional Budget Office. (August 1998). *The Economic and Budget Outlook: An Update*. Washington, DC: U.S. Government Printing Office.

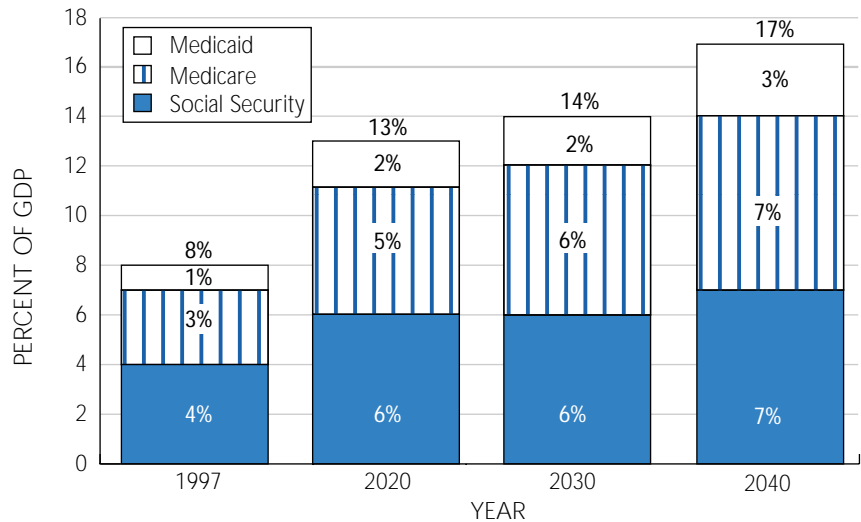
⁴ Grad, S. (April 1998). *Income of the Population 55 or Older: 1996*. Washington, DC: Social Security Administration.

⁵ The Kaiser Medicare Policy Project. (April 1997). *The Medicare Program: Medicare at a Glance*. Washington, DC: Kaiser Permanente.

GIVEN ANTICIPATED INCREASES IN THE NUMBERS OF SOCIAL SECURITY AND MEDICARE BENEFICIARIES, FEDERAL EXPENDITURES ARE EXPECTED TO INCREASE

The share of the nation's income going to finance Social Security, Medicare, and Medicaid could increase dramatically even with no changes in current law. The Congressional Budget Office (CBO) suggests, for example, that the proportion of GDP spent on Social Security, Medicare, and Medicaid could go from 8 percent in 1998, to 13 percent by 2020, to more than 17 percent by 2040. Most of the growth is projected to be in the Medicare program, with Medicare expenditures expected to be larger than Social Security benefit payments by 2045.

Figure 3-8: Projections of Federal Expenditures



Source: Congressional Budget Office, *Long-Term Budgetary Pressure and Policy Options*, May 1998, Table 2-1.

WHAT A DIFFERENCE A YEAR MAKES

In May 1996 CBO released the results of a long-term budget projection model. New projections were released in March 1997.

In the course of one year the picture for 2030 changed considerably. GDP was 4.6 percent higher, and federal spending was 8.5 percent lower.

Technical adjustments to the model itself account for some of the differences, but more importantly, it was a changed projection for the current-year budget. In particular, the estimated 1996 budget deficit fell from \$146 billion to \$50 billion in the course of the year. This change was due primarily to better-than-expected economic results in the very short run. In theory, a change in the fiscal conditions in 1996 should have a relatively small influence on GDP 34 years later. But, given the way such modeling must be done, small changes in a particular assumption cumulate into a big change in how the model reports the future.

Table 3-2: Change in Projections of 2030, May 1996 to March 1997

| | Percentage Change |
|-------------------------------|-------------------|
| Social Security | -10.4% |
| Medicare | 4.6% |
| Medicaid | 4.6% |
| Total Federal Spending | -8.5% |
| GDP | 4.6% |

Source: Congressional Budget Office, *Long-Term Budgetary Pressures and Policy Options*, March 1997, Tables 4 and 5. Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1997–2006*, May 1996, Tables 4-4 and 5-5.

WHAT A DIFFERENCE A YEAR MAKES (REDUX)

In May 1998 CBO released new long-term budget estimates. Again, much had changed since it had published long-term estimates 14 months earlier (March 1997, see prior box). In particular, CBO now anticipated that the federal budget would be balanced in 1998 and that there would be annual surpluses through 2008. Moreover, the Balanced Budget and Taxpayer Relief Act of 1997 had been passed, and both unemployment and inflation rates were still low. These changes, both real and anticipated, again improved the budget projections for 2030.

The changes did not change the CBO's conclusion that the ratio of federal debt to GDP would eventually rise, however.

Table 3-3: Change in Projections of 2030, March 1997 to May 1998

| | Percentage Change |
|-------------------------------|-------------------|
| Social Security | -3.5% |
| Medicare | -17.3% |
| Medicaid | -35.7% |
| Total Federal Spending | -13.8% |
| GDP | 3.5% |

Source: Congressional Budget Office, *Long-Term Budgetary Pressures and Policy Options*, Washington, DC, May 1998, Tables 2-1 and 2-4.

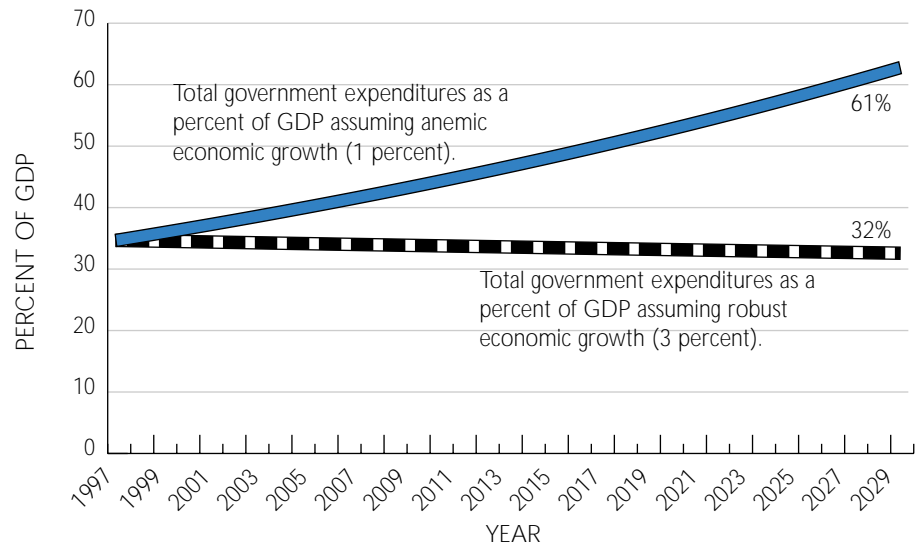
ECONOMIC GROWTH IS A KEY FACTOR IN DETERMINING HOW THE AGING OF SOCIETY WILL AFFECT FUTURE GOVERNMENT SPENDING

In 1997, total federal, state, and local government expenditures were just over 34 percent of GDP. Depending on what transpires at all levels of government, as well as what happens to economic growth, government expenditures in 2030 may be anywhere between 32 and 61 percent of GDP.⁶ As a proportion of our nation's income, in other words, total government spending may be no larger than today or considerably larger.

Economic growth will make the difference. For government expenditures to remain the same share of GDP in 2030 as today, on the assumption that current law continues, the economy would have to grow on average 2.8 percent a year. Anemic real economic growth (one percent) for 30 years will increase government spending as a share of GDP to 61 percent. Robust real economic growth (three percent) for 30 years will reduce government spending as a share of GDP to 32 percent.

Public policies that boast economic growth even a little will increase

Figure 3-9: Total Government Expenditures as a Percentage of GDP through 2030, Using Two Assumptions of Economic Growth



Source: National Academy on an Aging Society calculations based on CBO projections for 2030.

our nation's wealth and make any level of government that much less of a collective burden. The richer the country is, of course, the more choices we will have about collectively sharing income. Reasonable economic growth will result in a wealthier nation. Decisions about how to share the additional wealth will determine whether or not the promises inherent in current social insurance programs will be kept. Presumably, future policy makers will respond to both the needs and the expectations of their constituencies, as well as to economic circumstances.

⁶ These calculations use CBO's projections of federal expenditures to 2030. In addition, state and local government expenditures are assumed to grow a bit faster than federal spending. This assumption reflects the fact that for most years since 1950 and for all years since 1982, state and local government expenditures have grown faster than federal expenditures. This assumption also reflects the continued Congressional actions that have devolved fiscal responsibility for government activities from the federal government to state governments. GDP is simply assumed to grow either 1 percent or 3 percent. In real terms, federal government expenditures are expected to increase 2.7 percent per year and state and local government expenditures are expected to increase 3 percent per year.

Chapter IV

THE ELDERLY OF TOMORROW WILL BE DIFFERENT

Much of the concern regarding the capacity of the country to accommodate an aging society is based on the needs and contributions of the current elderly. But tomorrow's elderly will almost certainly have different needs, behave differently and, hence, affect markets and public policy differently. There are three important reasons why the elderly of tomorrow are likely to be different:

- America's elderly are living in a manner that few of them could have imagined when they were younger. They are better educated, healthier, and wealthier. Tomorrow's elderly are likely to be better off than today's along all these dimensions.
- Tomorrow's elderly are likely to face very different challenges and to have opportunities that cannot yet be anticipated. This is because baby boomers will bring about changes in society as they age. They will also adapt to changing circumstances.
- The future elderly are likely to be at least as diverse as their predecessors. Today's elderly cover an age span between 65 and 113. They include vibrant and brilliant 93-year-olds in good health as well as cognitively impaired 66-year-olds in poor health. About 3 percent of the elderly are well off, with incomes of \$75,000 a year or more. But a little over 10 percent are poor, with incomes of \$7,700 a year or less. While improvements have occurred for the elderly as a whole, disparities in education, income, and health persist. If these inequalities continue—or worse, if they grow—they may threaten the chances of an improved future for us all as we grow old.

TODAY'S ELDERLY ARE BETTER OFF ON AVERAGE THAN THE ELDERLY OF PAST GENERATIONS

Relative to 40 years ago the financial condition of the elderly population has improved. And the elderly as a group are healthier than they were several decades ago. But many of today's elderly are poor or near-poor. Many more feel insecure financially because they have developing health problems and insufficient funds to cover the care they are likely to need.

SUCCESSIVE GENERATIONS OF ELDERLY ARE EACH BETTER EDUCATED THAN THE LAST

Table 4-1: Educational Distribution by Age and Year

| Age Cohort | Percent with Less than High School Degree | | | Percent with High School Degree or Some College | | Percent with College Degree | | |
|------------|---|------|---------------------|---|------|-----------------------------|------|---------------------|
| | 1969 | 1994 | 2019 (Projected) | 1969 | 1994 | 1969 | 1994 | 2019 (Projected) |
| 35 to 45 | 36.2 | 12.1 | | 50.5 | 60.4 | 13.3 | 27.5 | |
| 60 to 70 | 65.2 | 29.7 | 8–12 | 26.8 | 54.3 | 8 | 16 | 30–35 |
| 85+ | 81.6 | 55.5 | 23–28 | 14.5 | 33.2 | 3.9 | 11.3 | 20–25 |

Source: Hadley, J., *Analysis of Data from the 1969 and 1994 Health Interview Surveys*, Institute for Health Care Research and Policy, Georgetown University, 1998.

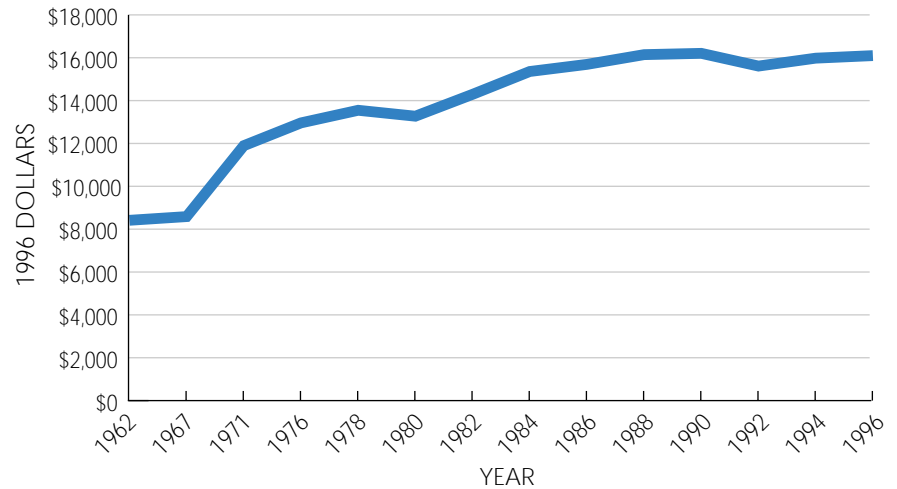
In the 25 years between 1969 and 1994, the proportion of adults who have not completed high school in each age group has decreased while the proportion of adults with high school and college degrees has increased. These trends are expected to continue. Only about 4 percent of

adults over age 85 had college degrees in 1969. Fifty years later, at least 20 percent of that age group will have a college education. A better educated elderly population can be expected to have different conceptions of “retirement,” with more of them potentially interested in remaining employed longer. A better educated elderly population is also likely to increase the demand for continuing education and personal enrichment activities associated with universities, museums, and other cultural institutions.

THE FINANCIAL STATUS OF THE CURRENT ELDERLY HAS IMPROVED RELATIVE TO THE ELDERLY OF THE PAST

The improvement in the overall financial status of the elderly reflects the growth of the economy since the Great Depression, and the establishment of public benefit programs, private insurance, and other private initiatives. The biggest advance came from Social Security, which began paying benefits in 1940. Other significant changes include health care and related social services through Medicare, Medicaid, and the Older Americans Act (all effective in 1966), the pension protections provided through the Employee Retirement Income Security Act of 1974 and subsequent amendments, and various tax law changes that encourage and subsidize home ownership and retirement saving.

Figure 4-1: Median Income of Elderly Families (In 1996 Dollars)

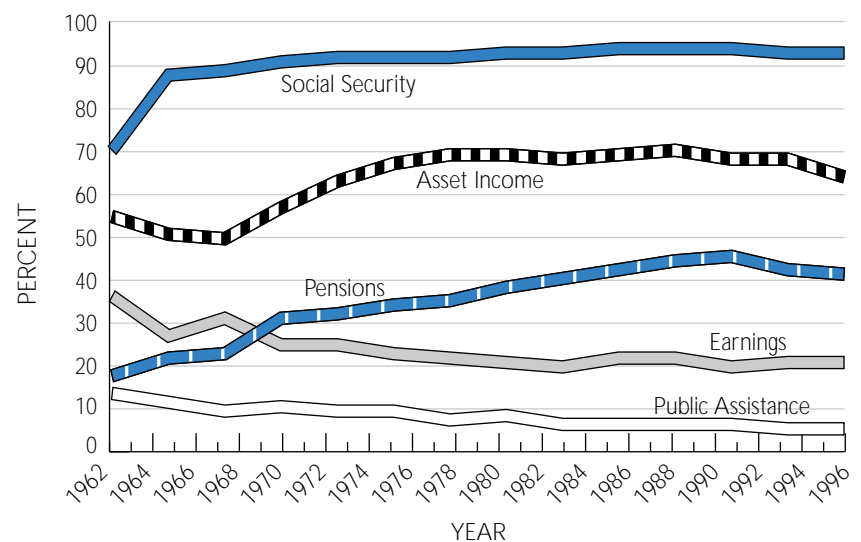


Source: Grad, S. (May 1998), *Income of the Aged Chartbook*, 1996.

CHANGES IN INCOME SOURCES REFLECT IMPROVEMENTS FOR THE ELDERLY

With respect to the distribution of income sources, Social Security has contributed most to improvements in financial security for the elderly over the years. In 1996, the vast majority of the elderly (91 percent) received Social Security benefits, compared with only 69 percent in 1962. Income from assets and pensions is also more prevalent now than in 1962 (although the proportions have declined somewhat since the late 1980s). Reliance on public assistance by the elderly, in contrast, has more than halved, with six percent receiving it in 1996 compared with 14 percent in 1962.

Figure 4-2: Percent of Elderly with Income Sources

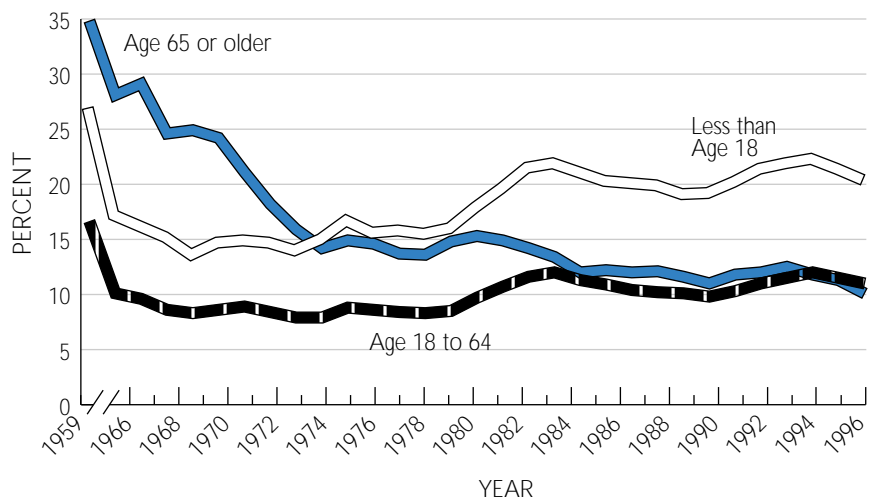


Source: Grad, S. (May 1998), *Income of the Aged Chartbook*, 1996.

POVERTY RATES HAVE DECLINED

As recently as the 1960s, old age was strongly associated with poverty. In 1960 more than one-third of the elderly were poor. Today, slightly over one-tenth are poor. By 1974, the poverty rate for the elderly had already dropped to half the 1968 rate. The largest real increases in Social Security benefits occurred during that five-year period, helped in 1972 by the pegging of benefits to a cost of living index. This decline in poverty among the elderly is a major societal accomplishment, especially since more elderly than ever live independently of their adult children. The bad news is that children are now more likely than adults to live in a poor household.

Figure 4-3: Poverty Rate by Age



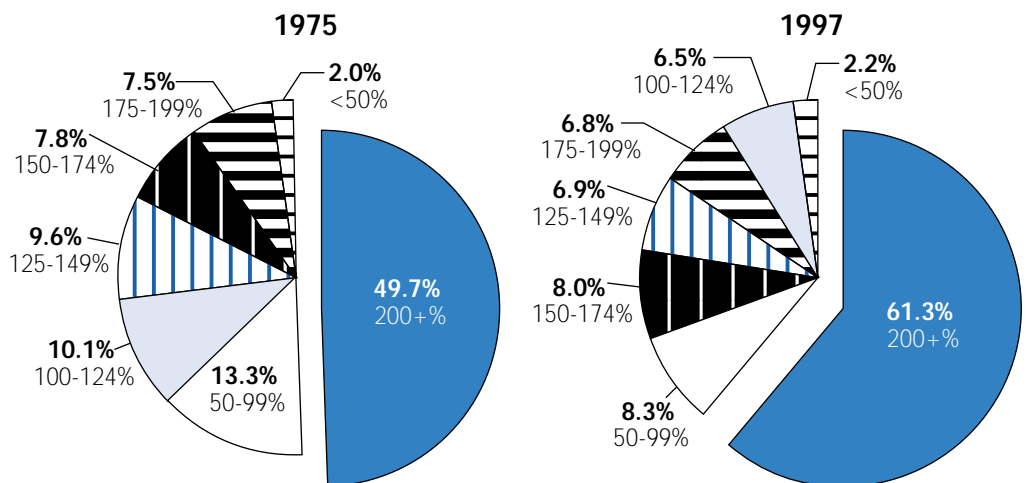
Source: U.S. Census Bureau, *Current Population Reports*, Appendix Tables C1 and C2, 1997. U.S. Census Bureau, *Poverty in the United States*, P60-198, 1998.

Note: Data from 1962 and 1964 are unavailable.

WHILE POVERTY RATES FOR THE ELDERLY HAVE DECLINED, THE ELDERLY ARE NOT RICH

That poverty rates have fallen and average real incomes have increased for the elderly does not mean that all the elderly are well off. In 1975, about 50 percent of the elderly had incomes less than 200 percent of poverty. By 1997, this proportion had fallen only 11 percentage points to 40 percent. The four out of 10 elderly persons with incomes at or below 200 percent of poverty are particularly vulnerable to increases in housing or out-of-pocket health care costs or other unexpected expenses.

Figure 4-4: Distribution of the Elderly by Income Relative to Poverty Level, 1975 and 1997



Source: <www.census.gov/hhes/poverty/histpov/hs+pov5.html>, extracted October 1998. U.S. Census Bureau, *Poverty in the United States: 1997*, Table 2.

THE FUTURE ELDERLY ARE LIKELY TO BE BETTER-OFF FINANCIALLY THAN THEIR PREDECESSORS

Discussions about retirement income in the future are often based on examining the retirement income of those who are already elderly. This can be misleading, because the generation now beginning to retire has had a uniquely beneficial set of economic experiences. People born between 1930 and 1940 (now aged 58 to 68) were in the labor force during an unusually robust period of economic growth in the 1960s. As a group, they also saw their home values increase dramatically in the 1970s, and had begun saving for retirement early enough to take advantage of the high interest rates in the late 1970s and the stock market booms in the early 1980s and mid-1990s. In addition, they benefited from unanticipated cost-of-living increases in Social Security benefits legislated by Congress and

from the pension protections instituted as part of the Employee Retirement Income Security Act of 1974. Thus, they were more likely than workers in previous generations to participate in insured pension plans with vested rights to pension benefits. Many people in this age group were not only better off than their parents had been, but able to maintain a solid middle-income life style, even with just a high-school diploma.

People 20 years younger, who are now aged 38 to 58, benefited directly from none of these circumstances. They entered the labor force in the 1970s and early 1980s in such large numbers that they slowed the growth in real wages. They paid higher real prices for their homes and were not able to benefit fully from the stock market expansion of the 1980s (although they were in a better position for the market expansions in the mid-1990s). They are also less likely than their predecessors to have defined-benefit pension plans to which employers make substantial contributions. Defined contribution retirement plans, which are really only tax-advantaged savings plans, have become more common instead.

They did benefit from another set of factors, however. Relative to their predecessors, they spent more time in school, delayed starting a family, had fewer children, and are more likely to be married to a working spouse. These adaptations, as well as others related to their career choices and opportunities, may well provide some financial advantages not experienced by those “fortunate” enough to have been born between 1930 and 1940.

Table 4-2: Poverty Thresholds: 1997

| Size of Family Unit | Poverty Threshold |
|----------------------------|--------------------------|
| One Person | |
| <i>Under 65 Years</i> | \$8,350 |
| <i>65+ Years</i> | \$7,698 |
| Two Persons | |
| <i>Under 65 Years</i> | \$10,748 |
| <i>65+ Years</i> | \$9,701 |
| Three Persons | \$12,554 |
| Four Persons | \$16,555 |

Source: U.S. Census Bureau, *Current Population Survey*, March 1997. <www.census.gov>

BABY-BOOMERS HAVE MORE INCOME AND ASSETS THAN THEIR PARENTS DID WHEN THEY WERE THE SAME AGE

The Congressional Budget Office compared the income and assets of two generations of people, born some 30 years apart, and found that those aged 25 to 44 in 1989 had higher incomes and had accumulated more wealth than people aged 25 to 44 thirty years earlier, in 1959. The first group represents virtually all the baby boomers. The second group, now aged 55 to 74, consists largely of their parents.

Table 4-3: Median Income and Wealth by Household Composition, 1959 and 1989 (1989 Dollars)

| | Age 25 to 34 | | Age 35 to 44 | |
|-----------------------|--------------|----------|--------------|----------|
| | 1959 | 1989 | 1959 | 1989 |
| All Households | | | | |
| <i>Median Income</i> | \$22,300 | \$30,000 | \$25,100 | \$38,400 |
| <i>Median Wealth</i> | 6,100 | 9,000 | 29,300 | 54,200 |
| Not Married | | | | |
| <i>Median Income</i> | 13,000 | 21,900 | 14,200 | 25,300 |
| <i>No Children</i> | 17,000 | 26,000 | 16,800 | 28,700 |
| <i>With Children</i> | 8,100 | 13,300 | 10,900 | 20,900 |
| <i>Median Wealth</i> | 400 | 1,800 | 6,300 | 16,700 |
| <i>No Children</i> | 900 | 3,100 | 13,500 | 17,700 |
| <i>With Children</i> | 0 | 700 | 1,900 | 17,900 |
| Married | | | | |
| <i>Median Income</i> | 23,300 | 36,700 | 26,700 | 46,800 |
| <i>No Children</i> | 26,500 | 44,500 | 28,000 | 50,500 |
| <i>With Children</i> | 22,700 | 34,600 | 26,300 | 46,200 |
| <i>Median Wealth</i> | 7,900 | 17,300 | 36,500 | 70,100 |
| <i>No Children</i> | 7,800 | 17,200 | 43,100 | 71,900 |
| <i>With Children</i> | 8,000 | 18,800 | 35,500 | 70,100 |

Source: Salisbury, D. & Jones, N., (ed.), *Retirement in the 21st Century...Ready or Not...*, Employee Benefit Research Institute, Table 3.1.

While the baby-boom generation is generally in better shape financially than their parents, whether these greater resources will ensure the financial security of the baby boomers in 2030 is still an open question. The answer depends on how much baby boomers save between now and when they leave the labor force; how old and healthy they are when they retire; the cost, scope, and depth of their health insurance coverage; and their life expectancy. The strength of the economy, the housing market, the private pension system, and the structure of government programs will also affect their financial well-being as elderly Americans.

Table 4-4: Median Income and Wealth by Employment and Education, 1959 and 1989 (1989 Dollars)

| | Age 25 to 34 | | Age 35 to 44 | |
|------------------------------|--------------|----------|--------------|----------|
| | 1959 | 1989 | 1959 | 1989 |
| Median Income | | | | |
| <i>Married, one earner</i> | \$21,900 | \$28,100 | \$24,700 | \$38,500 |
| <i>Married, two earners</i> | 25,500 | 41,500 | 29,600 | 50,400 |
| Median Wealth | | | | |
| <i>Married, one earner</i> | 12,600 | 8,100 | 40,700 | 53,400 |
| <i>Married, two earners</i> | 5,600 | 28,300 | 34,600 | 92,400 |
| Median Income | | | | |
| <i>No high school degree</i> | 18,600 | 16,300 | 20,700 | 20,800 |
| <i>High school degree</i> | 23,900 | 29,000 | 27,500 | 35,600 |
| <i>Four years of college</i> | 29,200 | 41,800 | 38,500 | 53,400 |
| Median Wealth | | | | |
| <i>No high school degree</i> | 800 | 1,600 | 13,900 | 6,100 |
| <i>High school degree</i> | 8,600 | 8,300 | 43,200 | 45,600 |
| <i>Four years of college</i> | 23,100 | 28,300 | 68,400 | 102,700 |

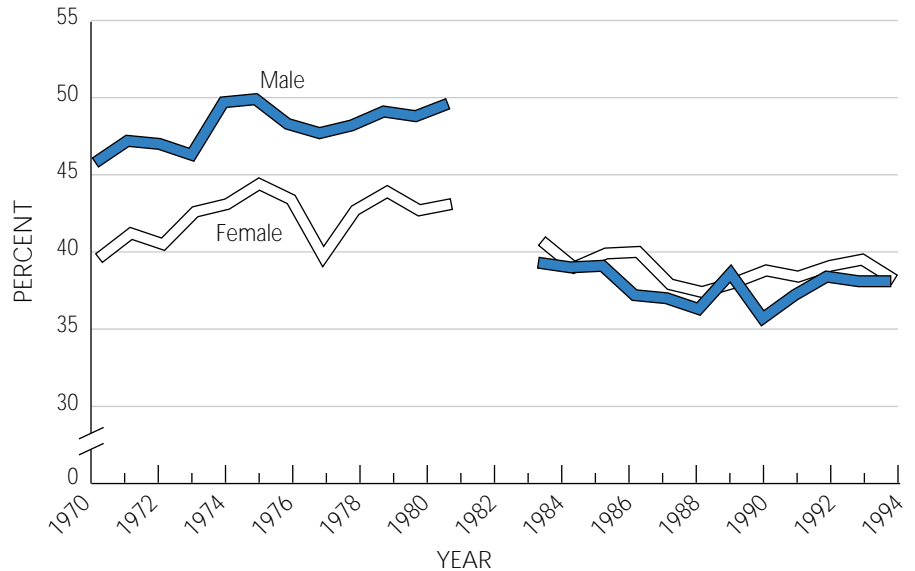
Source: Salisbury, D. & Jones, N., (ed.), *Retirement in the 21st Century...Ready or Not...*, Employee Benefit Research Institute, Table 3.1.

TODAY'S ELDERLY ARE HEALTHIER THAN THEIR PREDECESSORS

Increasing life expectancy is one indication that, in general, today's elderly are healthier than their predecessors. Since the turn of the century the causes and circumstances of death have changed. Acute and infectious diseases such as tuberculosis, influenza, and pneumonia were much more significant causes of death than they are today. With improved public health and advances in medicine, those diseases can be treated. Of course, surviving acute conditions increases the probability of acquiring other diseases such as cancer or heart disease, which is the leading cause of death for the elderly in the U.S. today. But reductions in mortality have occurred for these causes of death as well. Heart disease mortality has followed a consistent downward trend since 1950 and cancer mortality has declined since 1990.¹

Among the elderly, disability rates were fairly constant in the 1970s, at

Figure 4-5: Disability Rates of the Elderly, by Gender



Source: Kaye, H., LaPlante, M., Carlson, D., & Wenger, B., Trends in Trends Disability Rates in the United States, 1970–1994, *Disability Statistics Abstract*, Number 17, November 1996, Figure 2.

Note: Data for 1982 are unavailable.

about 48 percent for men and 42 percent for women. During the 1980s and early 1990s, they were again about constant, but at lower rates—about 38 percent for men and 39 percent for women.² There is some evidence that today's population aged 65 and older in the U.S. is less disabled than earlier cohorts. Based on data from the 1982, 1984, 1989, and 1994 National Long-Term Care Surveys, researchers at Duke University found that the disability rates among persons 65 and older declined by 1.3 percent per year between 1982 and 1994. This resulted in 1.2 million fewer seniors with disabilities in 1994 than if the disability rate had not declined. This decline has many experts discussing the likelihood of further declines in disability rates in the future.³

1 National Center for Health Statistics. (October 1998). Births and Deaths: Preliminary Data for 1997. *National Vital Statistics Report*, 47(4).

2 The lower rates after 1982 are due to revised questions in the National Health Interview Survey that mention self-care activities, rather than work or housekeeping, as the locus of disability within the elderly population.

3 Manton, K., Corder, L., & Stallard, E. (1997). Chronic Disability Trends in Elderly in the United States. *The National Academy of Sciences of the USA*, 94, 2593–2598.

TOMORROW'S ELDERLY ARE LIKELY TO FACE VERY DIFFERENT CHALLENGES AND TO HAVE OPPORTUNITIES THAT CANNOT YET BE ANTICIPATED

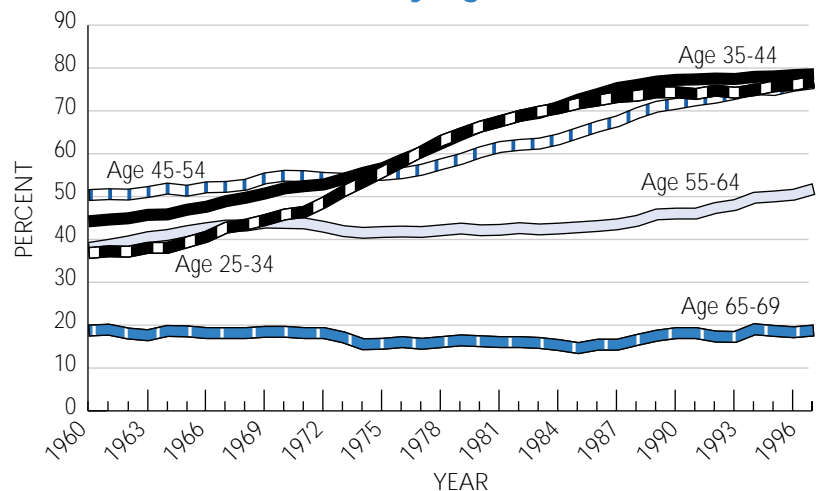
Many institutions and expectations changed to accommodate the baby-boomers as they went through childhood, adolescence, and their adult working years. The educational system, the labor market, and the housing markets have changed over the past five decades. The structure of the family has also changed—as have where and how the elderly live, what their health care needs are, and who cares for them. In the coming decades, as society ages, more changes are certain. Recent trends indicate how different life may be in the future.

THE CHANGING LABOR FORCE: MORE WOMEN OF ALL AGES ARE WORKING MORE

Since 1950, the labor force increased by 120 percent⁴ and the population by only 78 percent. The difference stems from a dramatic change in the labor force participation of women, generally, and women with young children, in particular.

Women, including women aged 55 to 64, are more likely to be in the labor force today than women in the same age range nearly 40 years ago. The work force participation of older women aged 65 to 69 has also increased in recent years. And the proportion of married women in the labor force with young children has doubled just since 1970.⁵

Figure 4-6: Labor Force Participation Rates for Women, by Age



Source: Quinn, J. *Retirement Patterns and Bridge Jobs in the 1990s*.

⁴ U.S. Census Bureau, *Historical Statistics of the U.S., Colonial Times to 1970*, p. 8, 127. (1960 Data).

U.S. Census Bureau, *Statistical Abstract of the United States, 1997*, Table 1334, p. 831; (1997 Population Data).

Bureau of Labor Statistics <<ftp://ftp.bls.gov/pub/special.requests/lf/aatl.txt>>.

⁵ Bureau of Labor Statistics, *Ibid.*

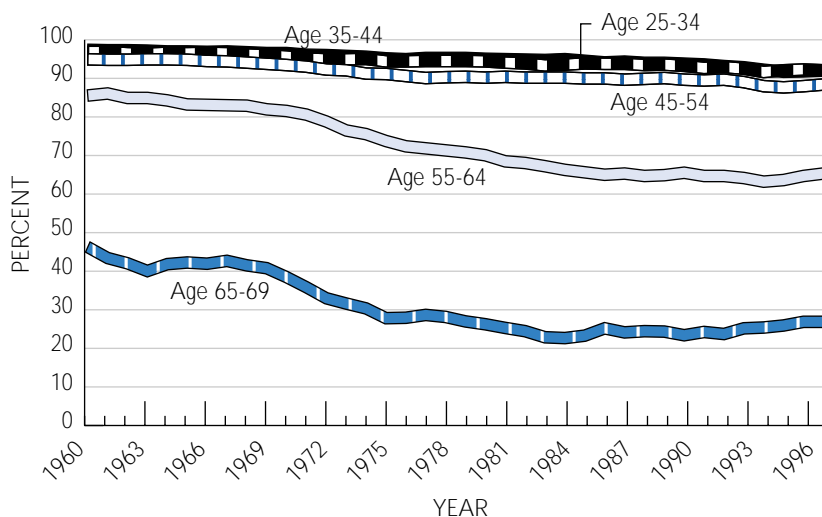
THE CHANGING LABOR FORCE: OLDER MEN ARE ALSO MORE LIKELY TO WORK NOW THAN JUST A DECADE AGO

For decades, successive cohorts of men retired at younger and younger ages. Labor force participation rates for men aged 65, for example, declined from about 72 percent in 1950 to 30 percent in 1995. Since then, however, labor force participation rates for men in this age group have increased somewhat. And the patterns are similar for men in other age cohorts.

A number of factors probably contributed to the initial decline. For some men, a sense of financial security provided by the prospect of pension and Social Security payments or income from a working spouse led to a decision to retire early and pursue other interests. Others had to leave the work force for health reasons. And still others were encouraged to retire by employer-provided retirement plans.

The very recent trend for both men and women to remain in the work force longer may reflect decisions they have made in response to financial necessity, or to the financial uncertainty associated with life spans that can continue for 30 years or more past the traditional retirement

Figure 4-7: Labor Force Participation Rates for Men, by Age



Source: Quinn, J. *Retirement Patterns and Bridge Jobs in the 1990s*.

age. Increased labor force participation rates may also reflect new opportunities for older workers or an interest on their part in prolonging the intellectual or social stimulation associated with their jobs. Going from full-time “career” jobs to other “bridge” jobs (including part-time jobs or self-employment) before full retirement has also become more common.⁶ Although the next 20 years will see growing numbers approaching the age at which workers traditionally left the labor force, the choices future workers will make are by no means predictable from the choices workers made in the past. Over 70 percent of baby boomers, for example, say they plan to continue working at least part-time after age 65.⁷

⁶ Quinn, J. (1997). Retirement Trends and Patterns in the 1990s: The End of an Era?, *Public Policy and Aging Report*, 8(3), 10-14.

⁷ American Association of Retired Persons Public Policy Institute. (1998). *Boomers Approaching Midlife: How Secure a Future?*, Washington, DC: AARP.

FAMILY STRUCTURE HAS CHANGED

Since 1960, family structure has changed considerably and family relationships have become more complex. Men and women both marry later on average. The divorce rate has risen. A higher share of babies is born to unmarried mothers. And a higher share of families is headed by a single parent. These changes relative to two or three decades ago suggest how impossible it is to know now how families will organize and define their relations and obligations 40 years from now.

Table 4-5: Changes in Family Structure

| | 1960 | Today |
|--|-------------------|-------------------|
| Average Age of Marriage | | |
| Men | 22.8 | 26.9 ^a |
| Women | 20.3 | 24.5 ^a |
| Divorce Rate (per 1,000) | 2.2 | 4.1 ^a |
| Household Size | 3.1 ^c | 2.7 ^d |
| Percent of Births to Unmarried Mothers | 21.6 | 32.6 ^b |
| Percent of Families Headed by a Single Parent | 22.0 ^e | 32.0 ^d |
| Percent of Single Parent Families Headed by Fathers | 10.0 ^c | 17.0 |

^a 1995; ^b 1994; ^c 1970; ^d 1996; ^e 1980

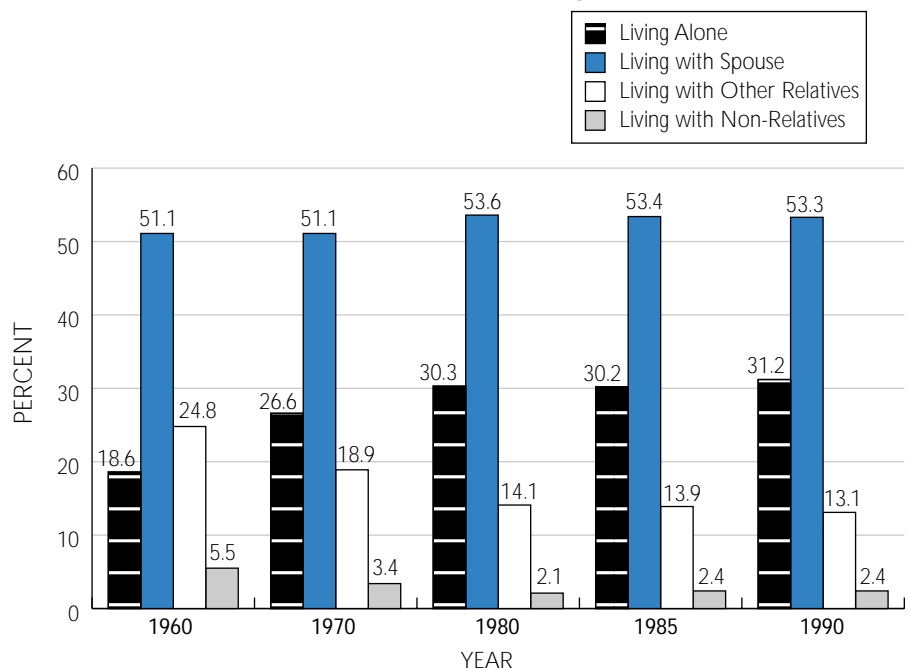
Source: U.S. Census Bureau, *Statistical Abstract of the United States, 1997*, Tables 66, 75, 88, 89. U.S. Census Bureau, *Historical Statistics of the United States: Colonial Times to 1970*, Series B28-35. U.S. Census Bureau, Population-Special Subjects *Current Population Reports*, P20-484, March 1984. U.S. Census Bureau, *Current Population Reports*, P20-515, March 1998.

CHANGES IN LIVING SITUATIONS: TODAY'S ELDERLY ARE LESS LIKELY TO LIVE WITH RELATIVES AND MORE LIKELY TO LIVE ALONE

With respect to the elderly, the proportion living with spouses has increased slightly since 1960. But the real change is the smaller proportion of elderly living with other relatives—down from almost one-quarter in 1960 to only about 13 percent in 1990. Thus, it is no surprise that the proportion of elderly people living alone increased substantially, from less than 19 percent to 31 percent, during the same period. The share of elderly widows living alone, for example, rose from 18 percent in 1940 to 62 percent in 1990, while the share living with adult children declined from 59 percent to 20 percent. Income growth, particularly increased Social Security benefits, was the single most important factor causing this.⁸

Family members are less likely to live near one another today than in the past. In a 1992 study of 51 to 61 year-olds,

Figure 4-8: Living Arrangements of the Non-Institutionalized Elderly



Source: U.S. Census Bureau, *Current Population Reports* <www.census.gov>

less than half—some 40 percent—reported that they had children living within 10 miles.⁹ In a 1994 study of persons aged 70 and older, only 35 percent said their children lived 10 miles away or closer.¹⁰

⁸ McGarry, K. & Schoeni, R. (1998). *Social Security, Economic Growth, and the Rise in Independence of Elderly Widows in the 20th Century*. Presented at Syracuse University, September 1998.

⁹ McGarry, K. & Schoeni, R. (1995). Transfer Behavior in the Health and Retirement Study. *Journal of Human Resources*, 30.

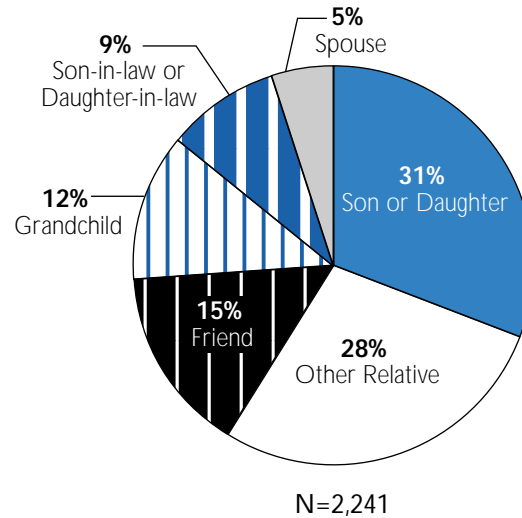
¹⁰ McGarry, K. & Schoeni, R. (1997). Transfer Behavior Within the Family: Results from the Asset and Health Dynamics Study. *The Journals of Gerontology*, 52(B).

CHANGES IN CAREGIVING: FAMILIES WILL CONTINUE TO PLAY AN IMPORTANT ROLE, BUT MORE ASSISTANCE WILL PROBABLY BE REQUIRED

In the future, there is every expectation that the pool of potential caregivers will grow smaller. Smaller family sizes mean fewer children to provide long-term care for their parents. Increased mobility means that adult children are less likely to live nearby. More younger and older women in the work force leaves fewer at home to provide care. Meanwhile, the pool of potential caregivers may also become more varied. Longer life expectancies make it more likely that there will be grandchildren who can assist family members. With more divorce, there may be more ex-spouses involved with the care of former family members. And smaller family sizes, without a commensurate reduction in the size of homes, suggest that more families will have room to bring a parent or other relative to live with them.

Given the preference of most families to care for their own—and the financial necessity for some families to do so—families will almost certainly continue to play a major role in providing care. Employers have already responded to changing family needs, both in the area of child care and eldercare. More recently, federal legislation followed the lead of many larger employers in establishing specific eldercare rights

Figure 4-9: Informal Caregivers of the Elderly in the Community, 1997



Source: National Alliance for Caregiving & the American Association of Retired Persons, *Family Caregiving in the U.S.*, 1997.

Note: The average age of the care recipient is 77 years.

in the Family and Medical Leave Act of 1992. But the anticipated increase in the number of people needing long-term care still raises a serious challenge, given that the current system of care does not adequately assist families with the care of parents and grandparents who are already elderly.

Almost 80 percent of the elderly with limitations in their ability to function from day to day live at home or in a community-based setting. Virtually all of them receive at least some unpaid, non-professional assistance, the majority of which comes from family members. Adult children account for 31 percent of all informal caregivers, and daughters constitute almost two-thirds of adult children caregivers.¹¹ Spouses constitute only 5 percent of all informal caregivers. But almost 23 percent of caregivers aged 50 and over are spouses. More wives provide care than husbands.¹² But the greater numbers of younger and older women in the paid work force leave fewer women at home to provide care, a trend that is likely to continue.

¹¹ Komisar, H., Lambrew, J., & Feder, J. (1996). *Long-Term Care for the Elderly Chart Book*. Washington, DC: Institute for Health Care Research and Policy, Georgetown University.

¹² Ibid.

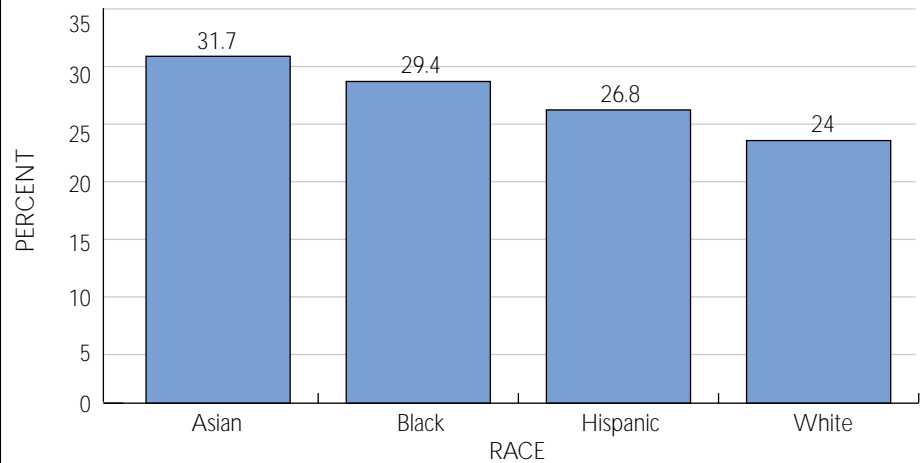
WHO ARE THE ELDERLY'S CAREGIVERS?

There is no universal definition of “caregiving.” Most accept it to mean informal care performed by relatives and close friends for a person who is no longer able to manage critical aspects of daily life. Caregivers generally provide assistance for IADLs (instrumental activities of daily living related to managing a household, such as shopping or cleaning) or ADLs (activities of daily living related to performing personal care such as toileting and feeding).

The majority of caregivers (85 percent) care for a relative, the remaining 15 percent care for a friend or neighbor. Care recipients average 77 years of age; 40 percent are over 75, and 24 percent are over 85. The typical caregiver is a married woman in her mid-forties who works full-time, is a high school graduate, and has an annual household income of \$35,000. There is, however, tremendous diversity around this average portrait.

It is remarkable to note that most long-term care is provided by family caregivers and that families persist in providing substantial amounts of care despite the presence of professional caregivers. Thus, whether a family uses privately or publicly financed assistance, family members continue to be important sources of caregiving.

Figure 4-10: Prevalence of Informal Caregiving in Households, by Race

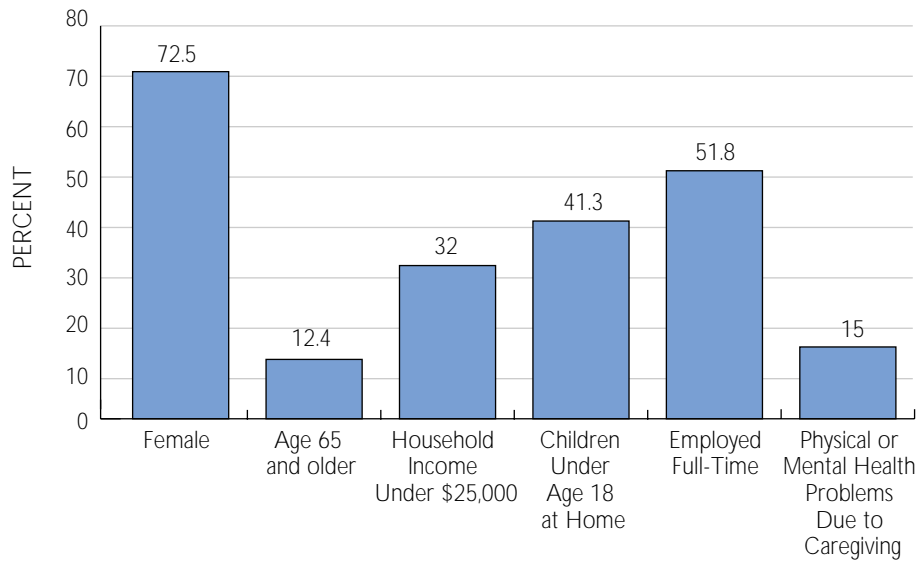


Source: National Alliance for Caregiving and the American Association of Retired Persons, *Family Caregiving in the U.S., 1997*.

Caregiving can be taxing. In a recent study by the Alzheimer’s Association, 75 percent of all caregivers reported being depressed at least occasionally and 34 percent reported being depressed frequently or almost always.¹ Some 15 percent of caregivers experience physical or mental health problems due to caregiving.²

Caring for the elderly also has costs for both employers and employees. More than half of caregivers are employed, and productivity in the work place can suffer because of caregiving activities. Work accommodations caregivers make include changes in daily schedules (49 percent), taking a leave of absence (11 percent), and working fewer hours or taking a less demanding job (7 percent).³ Some caregivers even leave the work force altogether to provide care. In fact, almost one-third of caregivers who administer care to persons needing help with two or more ADLs report giving up work entirely.⁴

Figure 4-11: A Profile of Informal Caregivers



Source: National Alliance for Caregiving and the American Association of Retired Persons, *Family Caregiving in the U.S.*, 1997.

Note: Care recipient is a relative or friend age 50 or older.

1 Alzheimer’s Association, *An Exploration of the Plight of an Alzheimer Caregiver*, August, 1996.

2 National Alliance for Caregiving and the American Association of Retired Persons, *Family Caregiving in the U.S.*, 1997.

3 Ibid.

4 Ibid.

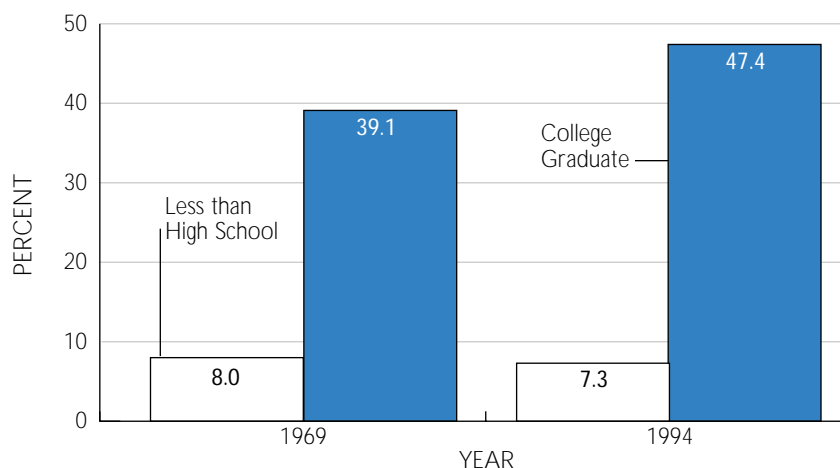
THE FUTURE ELDERLY ARE LIKELY TO BE AT LEAST AS DIVERSE AS THEIR PREDECESSORS

If only the averages are considered, it may be reasonable to be complacent about the future. But the fact that conditions for the elderly as a whole have improved in the recent past—and that there is likely to be a great deal more advantageous change in the future—is only part of the story. The more detailed examination of the data presented below shows that certain groups are very vulnerable. The gap in educational attainment among the baby boomers indicates that tomorrow's elderly will be a diverse group. Current financial disparities are likely to persist or grow and some individuals will be much healthier than others. Recent trends indicate the need for particular concern about certain segments of tomorrow's elderly population. Women are much more likely than men to be poor, for example. And African-American and Hispanic women tend to be poorer than other women. If policies to accommodate the elderly are to be effective, they must be geared to the neediest as well as to the better educated, the wealthier, and the healthier.

COLLEGE GRADUATES ARE MORE LIKELY TO HAVE HIGHER INCOMES AND TO BE HEALTHIER IN OLD AGE

The disparity in earnings between the elderly who have not completed high school and those who have college degrees has increased considerably in the last 20 years. In addition to having higher incomes and assets, older people with more education also tend to be healthier, have fewer disabilities, later onset of chronic disease, and lower death rates. Plausible reasons are better access to and understanding of information about how to stay healthy or to obtain treatment. If the trend toward more education continues, income and health disparities among the future elderly may increase.

Figure 4-12: Percent of Elderly with Income at \$40,000 or more by Education and Year

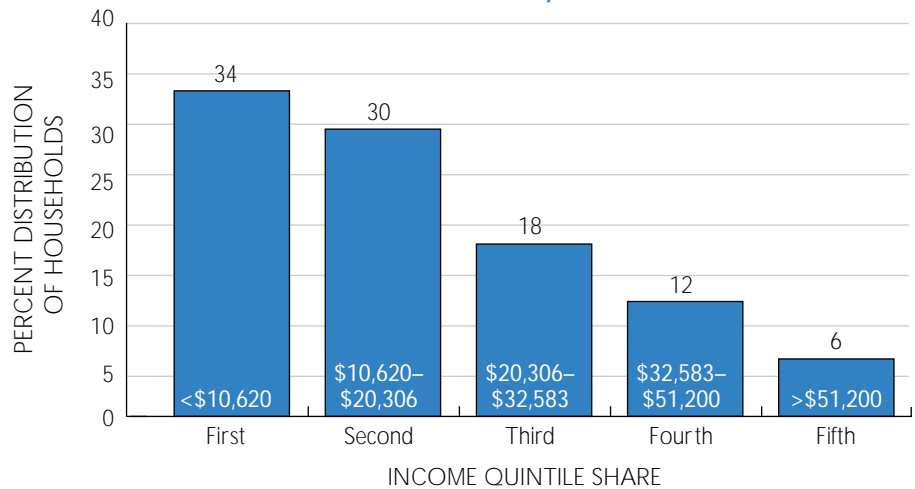


Source: Hadley, J., Analysis of the Preliminary Tables from 1969 and 1994 *Health Interview Surveys*.

INCOME AMONG THE ELDERLY IS NOT EVENLY DISTRIBUTED

Dividing the total income of the elderly population into equal dollar quintiles (20 percent shares) is a good way of illustrating the range of income inequality among the elderly. The top 20 percent of elderly income, for example, is shared among just 6 percent of elderly households, all of which have incomes above \$51,200 a year. The bottom 20 percent of elderly income is spread among 34 percent of elderly households, all of which have incomes below \$10,620 a year. The next to lowest 20 percent of elderly income is spread among 30 percent of elderly households, all of which have incomes between \$10,620 and \$20,306 a year. Putting the bottom two percentiles together reveals that nearly two-thirds of elderly households have incomes below \$20,000 a year.

Figure 4-13: Distribution of Total Elderly Income by Income Quintile Share, 1995



Source: Health Care Financing Administration. (May 1998). *A Profile of Medicare Chartbook*, Figure 8.

SOME GROUPS OF ELDERLY ARE PARTICULARLY VULNERABLE

Generally, married elderly couples have more income than single elderly individuals, and elderly men have more income than elderly women. Whites have substantially more income than blacks or Hispanics. Thus, incomes are highest among younger, married, white elderly, and lowest among older, single Hispanic women. Among non-married women aged 85 or older, median family income in 1996 was \$13,667. Among married couples aged 65 to 69, it was nearly three times as high, at \$35,764.

Table 4-6: Median Income of Elderly Households by Selected Characteristics: 1996

| | All 65 or Older | Age 65 to 69 | Age 70 to 74 | Age 75 to 79 | Age 80 to 84 | Age 85 or Older |
|-----------------------------|----------------------------|-------------------------|-------------------------|-------------------------|-------------------------|----------------------------|
| All Elderly* | \$20,535 | \$26,030 | \$21,968 | \$18,191 | \$17,150 | \$15,940 |
| White* | 16,954 | | | | | |
| Black* | 9,649 | | | | | |
| Hispanic* | 8,854 | | | | | |
| All Married Couples* | \$30,040 | \$35,764 | \$29,933 | \$26,578 | \$26,153 | \$24,485 |
| White* | 28,392 | | | | | |
| Black* | 20,464 | | | | | |
| Hispanic* | 16,406 | | | | | |
| Nonmarried Males* | \$18,157 | \$18,494 | \$18,130 | \$20,499 | \$16,377 | \$16,429 |
| White* | 14,300 | | | | | |
| Black* | 10,050 | | | | | |
| Hispanic* | 7,725 | | | | | |
| Nonmarried Females* | \$13,932 | \$16,271 | \$14,323 | \$12,938 | \$12,716 | \$13,677 |
| White* | 11,205 | | | | | |
| Black* | 7,286 | | | | | |
| Hispanic* | 6,791 | | | | | |

*Based on total family income of all relatives residing in the household.

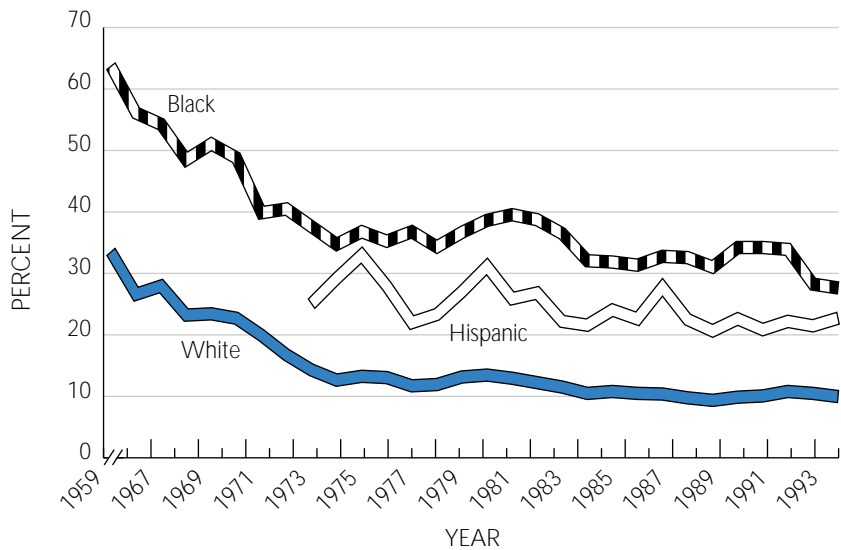
+Based on total income of the aged unit within a household. (Aged units are defined as married couples who live together—at least one of whom is 55 or older—and nonmarried persons age 55 or older).

Source: Grad, S. (April 1998). *Income of the Population 55 or Older, 1996*, Tables II.1. and III.3.

INCOME IMPROVEMENTS HAVE BEEN GREATER FOR SOME GROUPS THAN OTHERS

While poverty rates have declined for all elderly, the largest improvement since 1959 has occurred among the black population. The poverty rate for elderly whites remains far below the rate for black and Hispanic elders, however.

Figure 4-14: Poverty Rates of the Elderly by Race, 1959 to 1994

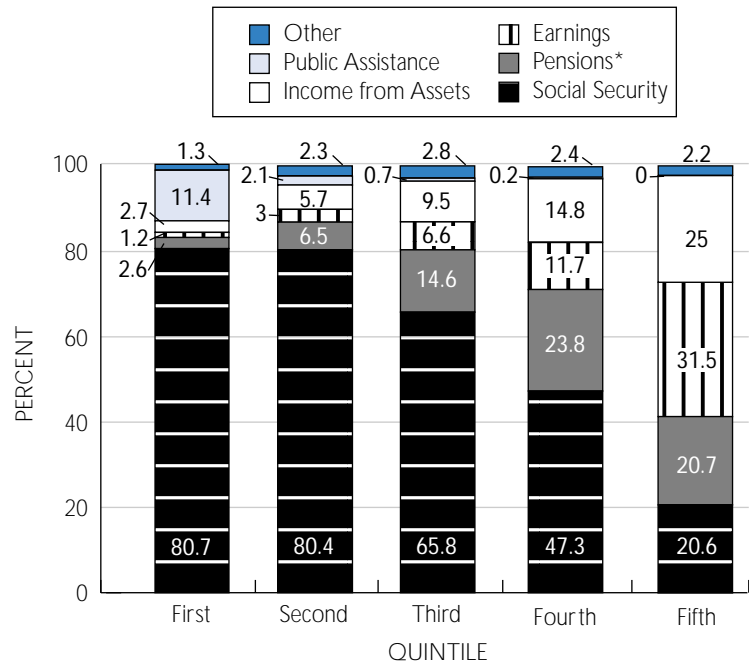


Source: U.S. Census Bureau, *Income Poverty, and Valuation of Noncash Benefits, 1994*. Table B-6.

SHARES OF INCOME VARY CONSIDERABLY FOR HOUSEHOLDS WITH DIFFERENT INCOMES

For those elderly in the top quintile of the elderly's income distribution (the wealthiest 20 percent), Social Security contributes only 21 percent of their total income. For all the other elderly as a group, Social Security provides almost half (47 percent) or more of their total income. For those whose income is within the bottom two quintiles (the poorest 40 percent), Social Security is critical, providing over 80 percent of their total income.

Figure 4-15: Share of Income from Various Sources for the Elderly, by Household Income Quintile, 1996



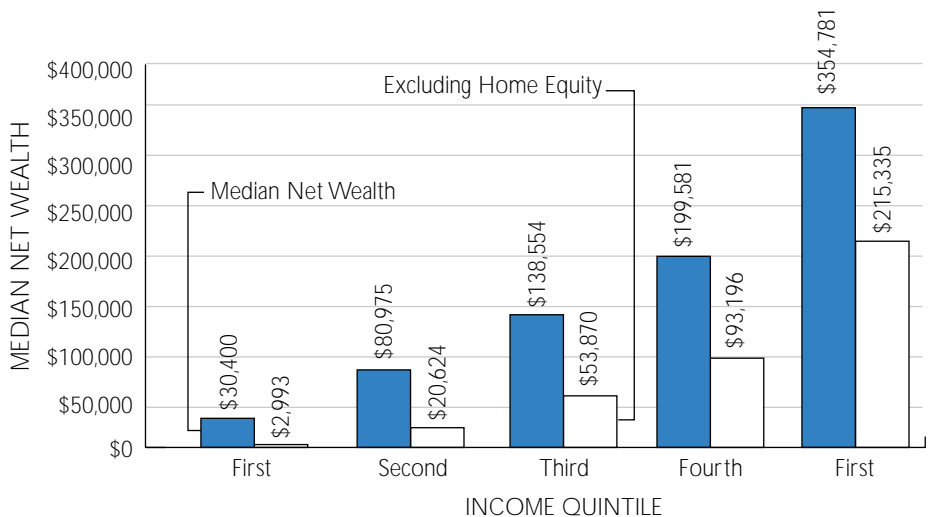
Source: Grad, S. (April 1998). *Income of the Population 55 or Older*, April 1996, Table VII.5.

*Includes railroad retirement, government employee pensions, private pensions, and annuities.

THE WEALTH DISTRIBUTION IS UNEVEN

In 1993, the elderly's median net wealth amounted to \$86,324.¹³ Most of this wealth was in their homes. If home equity is excluded, median net wealth of the elderly in 1993 drops to \$20,642. Among the elderly in the lowest 20 percent of the income distribution, median assets averaged \$30,400 with home, and less than \$3,000 without it. Among the top 20 percent, median wealth averaged \$354,781 with home and \$215,000 without it.

Figure 4-16: Median Net Wealth of Householders Age 65 or Older, by Household Income Quintile, 1993



Source: U.S. Census Bureau. Survey of Income and Program Participation, *Asset Ownership of Households: 1993*.

THE ELDERLY ARE PARTICULARLY VULNERABLE TO THE COST OF HEALTH CARE

Differences in health are a primary reason for the tremendous differences in well-being among the elderly population. First, health status is the major factor that determines whether people are able to lead active, independent lives. Second, health is an important determinant of economic well-being, because the cost of health and long-term care can be so high that it substantially drains elderly people's financial resources.

Since 1965, the elderly have had a great deal more financial and health security than ever before, because of the federal Medicare program. Virtually all the elderly today have health care coverage through Medicare. But not all health care or services related to day-to-day functioning are covered by Medicare or by private supplemental insurance policies.¹⁴ Medicare does not cover prescription drugs or long-term care, for example.¹⁵ Medicare enrollees are also required to meet deductibles and make copayments. Thus, many of the elderly still must make substantial out-of-pocket payments for care. The Medicaid program may fill gaps in Medicare coverage for the low-income elderly. But the high cost of health care—particularly long-term care, for which few people have insurance coverage—can be financially devastating for families not much above the income cut-off for Medicaid eligibility.

¹³ Median wealth measures total assets (excluding income from pensions and Social Security) minus liabilities.

¹⁴ Health Care Financing Administration. (May 1998). *A Profile of Medicare Charbook*. Washington, DC: Department of Health and Human Services. Medicare covers people with end-stage renal disease, and totally disabled people under age 65 who qualify because either they or their spouse or parent worked for 10 years in jobs that were covered by Social Security. In 1997, Medicare had about 39 million beneficiaries, of which 13 percent were under age 65. About 66 percent of all Medicare beneficiaries using fee-for-service have private supplemental insurance, either through an employer and/or purchased individually. About 13 percent of fee-for-service beneficiaries do not purchase other coverage. On the other hand, only 25 percent of beneficiaries enrolled in risk health maintenance organizations have private supplemental insurance. Sixty-eight percent of these beneficiaries rely on Medicare alone.

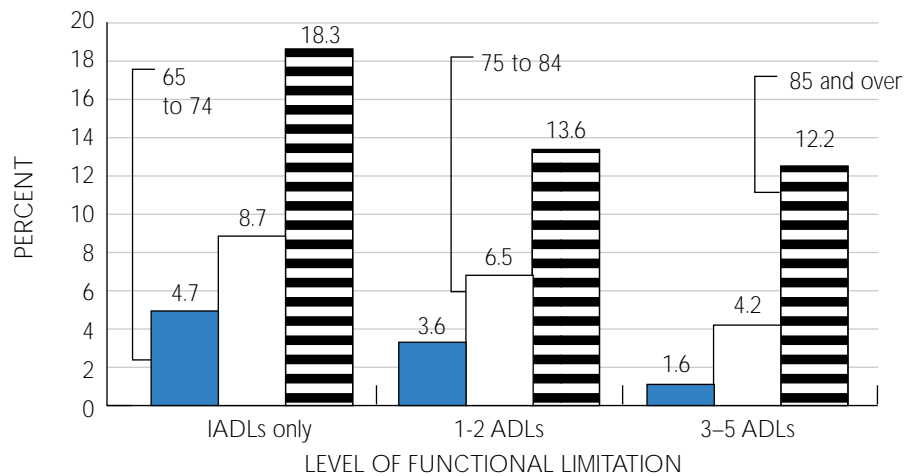
¹⁵ It should be noted that Medicare covers post-acute care. Since many of the post-acute care services are the same as long-term care services (e.g., home health care), some long-term care is financed by Medicare under the guise of post-acute medical care.

AS PEOPLE SURVIVE LONGER THEY ARE MORE LIKELY TO DEVELOP CONDITIONS THAT REQUIRE ONGOING ASSISTANCE

Some 17.1 million elderly people have some form of disability, according to 1990 figures, with disability broadly defined as having conditions that make it difficult to perform certain activities. For the elderly, the main conditions leading to disability are coronary heart disease, bad back, respiratory conditions, visual impairments, stiffness, and stroke.¹⁶ In addition, some people become disabled because of cognitive impairments such as senile dementia, or physical changes such as loss of strength and agility.

About 7.3 million of the disabled elderly need hands-on assistance from others to function on a day-to-day basis. The need for assistance with ADLs (activities of daily living) and IADLs (instrumental activities

Figure 4-17: Percent of Elderly Community Residents with Functional Limitations, 1995



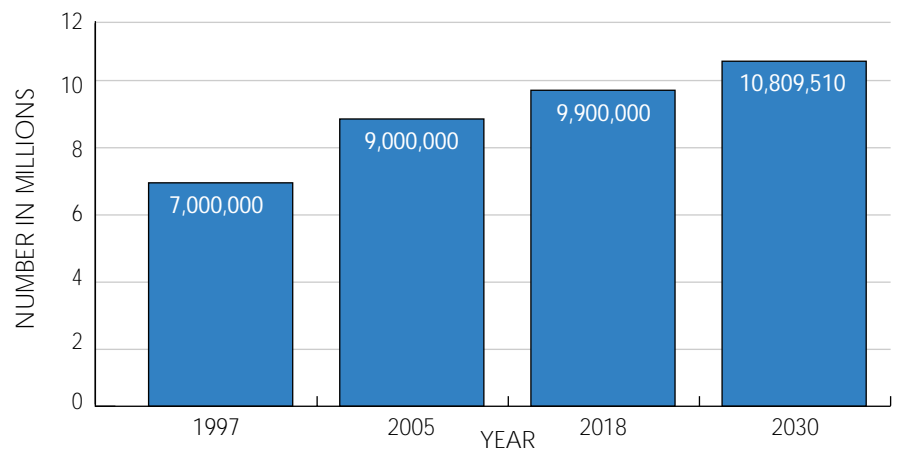
Source: Komisar, H., Lambrew, J., and Feder, J., (1996) *Long-Term Care for the Elderly: A Chart Book*, The Commonwealth Fund, Chart 1-10.

of daily living) increases with age. The proportion of people age 85 and older who need assistance is more than double that of those age 84 and younger for all levels of functional limitation.

MILLIONS ARE PROJECTED TO NEED LONG-TERM CARE IN THE FUTURE

Estimates based primarily on current disability rates and applied to the number of elderly anticipated in the future suggest the high likelihood that more people will need long-term care in the future. Estimates vary, however. Projections of the number of elderly needing long-term care by 2030 range from 10.8 million to almost 14 million.¹⁷

Figure 4-18: Projections of the Number of Elderly who Will Need Long-Term Care



Source: Estimates for 1997 and 2005 from Health Insurance Association of America, *Guide to Long-Term Care Insurance*, 1997. Estimates for 2018 from Wiener, J., L. Illston, & R. Hanley, *Sharing the Burden: Strategies for Public and Private Long-Term Care Insurance*. Washington, DC: The Brookings Institution, 1994. Estimates for 2030 from National Academy on an Aging Society calculations.

¹⁶ U.S. Department of Health and Human Services, Assistant Secretary for Planning and Evaluation, *Research Notes*, February 1995.

¹⁷ Calculations by the National Academy on an Aging Society using lower and upper bound disability rates for 2018 from Weiner et al. (1994) applied to the U.S. Census Bureau's middle series projected population for 2030.

CHANGES IN MEDICAL SCIENCE, TECHNOLOGY, AND BEHAVIOR AFFECT HEALTH CARE NEEDS

Recent advances in medicine, and current knowledge about the potential health effects of behavioral change make it reasonable to assume that the future health care needs of the elderly will be different from those needs today.

Medications and procedures that could not even be imagined a few years ago have radically changed the way some diseases are treated and have limited the threat they pose. While heart disease remains the number one cause of death, patients have a much greater chance of surviving a heart attack and controlling heart disease because procedures such as coronary angiography, angioplasty, new approaches to cardiac surgery, and new medications have been developed. Immunizations for polio, mumps, and chicken pox have all but eradicated those diseases. Laser technology has led to new, less invasive surgical techniques for many health conditions, such as heart disease, skin cancer, and eye problems. Research in biotechnology and genetics is also expanding the prospects for future cures. New diseases such as AIDS and the proliferation of cancer offer new challenges, but there is also tremendous scientific potential for the twenty-first century.

Lifestyle choices can affect health and longevity as well. Physical activity has protective effects for several chronic diseases, including coronary heart disease, hypertension, non-insulin-dependent diabetes mellitus, osteoporosis, colon cancer, depression, and anxiety.¹ Increasingly, older people are engaging in moderate physical activity to improve the overall quality of their lives.

The risk of heart disease falls when people stop smoking, regardless of the age at which they stop, the length of time they smoked, or how much they smoked.² Male deaths from lung cancer have begun to fall as a consequence of the decline in smoking that began three decades ago. Lung cancer deaths continue to climb, however, because elderly women are more likely to have smoked than the generation that preceded them.³ Projections show that there would be 11 percent fewer deaths in 20 years if all U.S. smokers stopped smoking, other things equal.⁴

Diet is another controllable risk factor affecting long-term health.⁵ Despite current knowledge about the best practices to promote health, the extent to which tomorrow's elderly will adopt those practices is not known. It is clear, however, that many people have the potential to improve their own future health status.

¹ National Center for Health Statistics, *Healthy People 2000 Review, 1995—96*, Hyattsville, Maryland: Public Health Service, 1996, p. 31.

² Kahn, R., and Rowe, J., *Successful Aging*, Pantheon, 1998, p. 67.

³ Treas, J. (1995). *Older Americans in the 1990s and Beyond*, *Population Bulletin*, 50(2), 16.

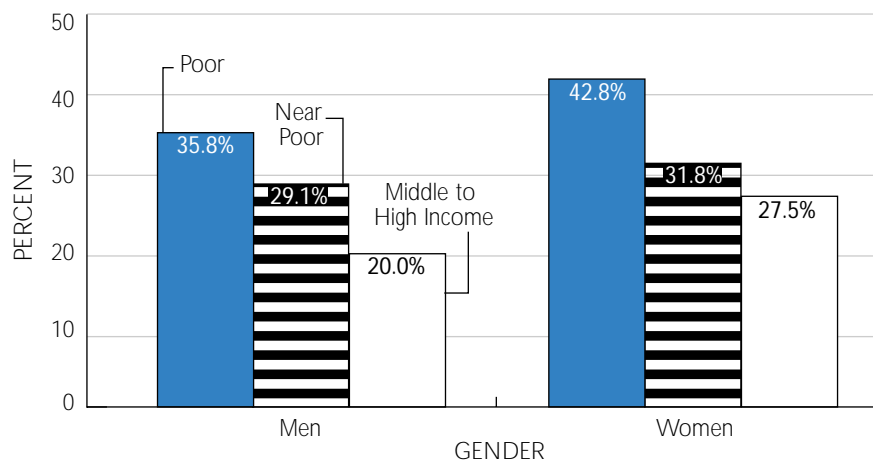
⁴ *Research Activities*, No. 216, June 1998, p. 1.

⁵ U.S. Department of Health and Human Services, *The Surgeon General's Report on Nutrition and Health*, Washington: Public Health Service, 1988.

THE LOW-INCOME ELDERLY ARE MORE LIKELY THAN THOSE WITH HIGHER INCOMES TO NEED HELP WITH ADLS

Older women have more difficulty with activities of daily living than older men do. Regardless of gender, however, income is associated with health status. A higher proportion of poor and near-poor elderly of both genders report difficulties compared with middle- or high-income elderly.

Figure 4-19: Difficulty with One or More ADLs among Adults Age 70 and Older



Source: National Center for Health Statistics, *Health, United States*, 1998, Figure 34.

MINORITY ELDERLY ARE POORER IN HEALTH AND IN OTHER RESOURCES

Nonwhites are more likely than whites to have little education, live in substandard housing, and be poor, malnourished, and in bad health. Poverty rates for minority elderly relative to their white counterparts have not improved since the 1970s. Poverty rates among older minorities, especially older, black women, averaged three times the rate of poverty for older whites.¹ Almost one in three white households report a financial inheritance, according to one study, compared with only one in ten minority households.²

Life expectancy at age 65 is 17.6 years for whites and 15.8 years for blacks, at least in part because of these socioeconomic disadvantages.³

People at the lower end of the socioeconomic range suffer disproportionately from major diseases such as cardiovascular problems, diabetes, cancer and hypertension as well as from a variety of illnesses.⁴ Both Black and Hispanic elderly tend to underuse health care services, which is closely related to their ability to pay.

Many are uninsured and often go without needed health care. Three-quarters of the white elderly have private insurance coverage compared with 44 percent of the black elderly and 39 percent of older people of Hispanic origin. In some cases, inability to pay for health care may result in death at an earlier age than if health care had been affordable.⁵ In addition, there are theories that are yet to have empirical backup that years of discrimination and inequality may affect minority elders' mental health, and through that, the aging process.

1 Harper, M. (Ed). (1990). *Minority aging, Health resources and services administration*. Department of Health and Human Services, Pub. No.(P-DV-90-4). Washington, DC: U.S. Government Printing Office.

2 Smith, J. Racial and Ethnic Differences in Wealth in the Health and Retirement Survey. *The Journal of Human Resources*, 30.

3 National Center for Health Statistics. (September 1997). *Monthly Vital Statistics Report*, 46, 1(S)2.

4 Binstock, R. & George, L. (1996). *Handbook of Aging and the Social Sciences*. (3rd Ed.). San Diego, CA: Press.

5 Harper, M. (1990)

LONG-TERM CARE POSES A SIGNIFICANT FINANCIAL BURDEN FOR MANY ELDERLY

In 1995, expenditures for long-term care for the elderly totaled \$91 billion, of which 70 percent of was for nursing home care and 30 percent for home health care.¹⁸ Out-of-pocket spending accounted for 39 percent of expenditures for long-term care.

The average nursing home stay today costs about \$3,300 a month.¹⁹ Home health care costs vary from \$1,000 a month to over \$3,000 a month depending on the level of disability.²⁰ In 1996 median monthly income among elderly families was \$1,342.²¹ Elders who need long-term care are clearly financially strapped.

WHAT IF THERE IS A CURE?

The enormous uncertainty related to making predictions about the need for long-term care and the cost of care in the future is illustrated by alternative scenarios associated with a single condition: Alzheimer's disease, which currently affects some four million people in the United States. The Alzheimer's Association estimates that the direct and indirect costs of Alzheimer's disease total at least \$100 billion each year, making it the third most expensive disease in the United States (after heart disease and cancer).¹

The Association predicts that about 14 million Americans will have the disease by the middle of the next century. Based on current treatment modalities, the projected cost of caring for the disease could reach \$350 billion per year, in 1998 dollars, and the need for long-term care would increase commensurately.

If researchers develop a cure for Alzheimer's disease, its financial and long-term care burdens will be greatly reduced. If, in contrast, no cure is found and even more people than predicted are affected, the costs will be yet more staggering. And the costs associated with the disease could be higher still if new expensive technologies or drugs are developed to test for or treat the disease, or if new types of facilities are built to care for patients with it. Many Alzheimer's patients are now treated at home.

¹ Alzheimer's Association. (1998). <<http://www.alz.org.facts.html>>.

¹⁸ U.S. General Accounting Office. (March 1998). Long-Term Care: Baby-Boom Generation Presents Financing Challenges. *Testimony Before the Special Committee on Aging, U.S. Senate*, Table 1, p.3. Washington D.C.: U.S. Government Printing Office.

¹⁹ American Health Care Association. (1998). *Today's Nursing Facilities and the People They Serve*. Washington, DC: American Health Care Association.

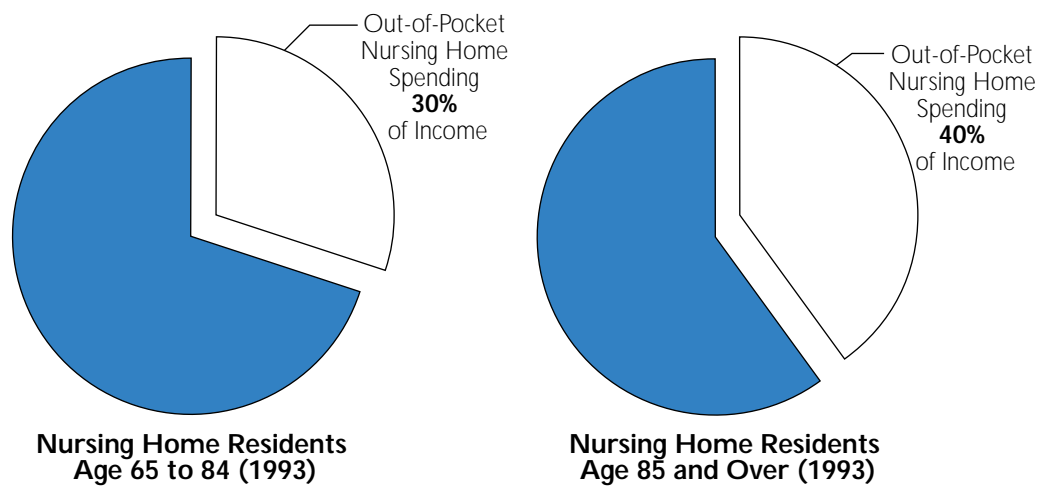
²⁰ Health Insurance Association of America. (1997). *Guide to long-term health care*. Washington, D.C.: Health Insurance Association of America. National Association for Home Care. (1997). *Basic Statistics About Home Care*. Washington, D.C. National Association of Home Care.

²¹ Grad, S. (May 1998). *Income of the Aged Chartbook, 1996*. Washington, D.C.: Social Security Administration.

OUT-OF-POCKET EXPENSES FOR NURSING HOME RESIDENTS ARE SUBSTANTIAL

In 1993, it was estimated that nursing home residents age 65 to 84 spent, on average, over 30 percent of their income on nursing home care. For nursing home residents age 85 and older, on average, 40 percent of their income was spent on nursing home care.

Figure 4-20: Nursing Home Residents Spend a Significant Portion of Their Income on Nursing Home Costs



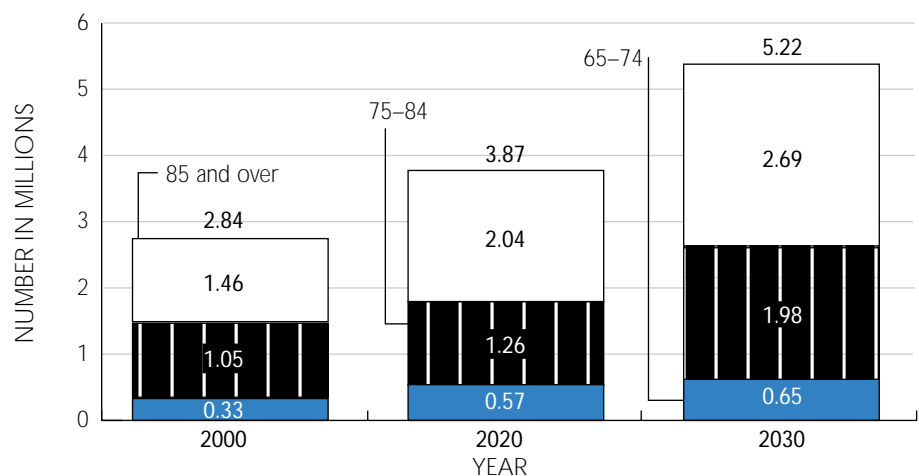
Source: Komisar, H., Lambrew, J., and Feder, J., (1996). *Long-Term Care for the Elderly: A Chart Book*, The Commonwealth Fund, Chart 11-7.

Note: "Income" is defined as income that the resident would have received if not institutionalized plus non-housing assets.

THE NURSING HOME POPULATION MAY INCREASE SUBSTANTIALLY

By 2030, according to one estimate, some 5.3 million elderly people are expected to need nursing home care. Another estimate puts the number between 4.3 and 5.3 million, depending on mortality projections.²² Over half of all women and about a third of all men who survive to age 65 can expect to spend some time in a nursing home before they die. About 25 percent of those entering a nursing home will spend less than three months there; about 50 percent will spend at least 1 year; but about 21 percent will spend at least five years. The likelihood of entering a nursing home increases with age. Nearly 19 percent of the population aged 85 and older live in nursing homes.²³

Figure 4-21: Nursing Home Population by Age



Source: American Council on Life Insurance, *Who Will Pay for the Baby Boomers' Long-Term Care Needs? Expanding the Role of Private Long-Term Care Insurance*, Figure 2, 1998.

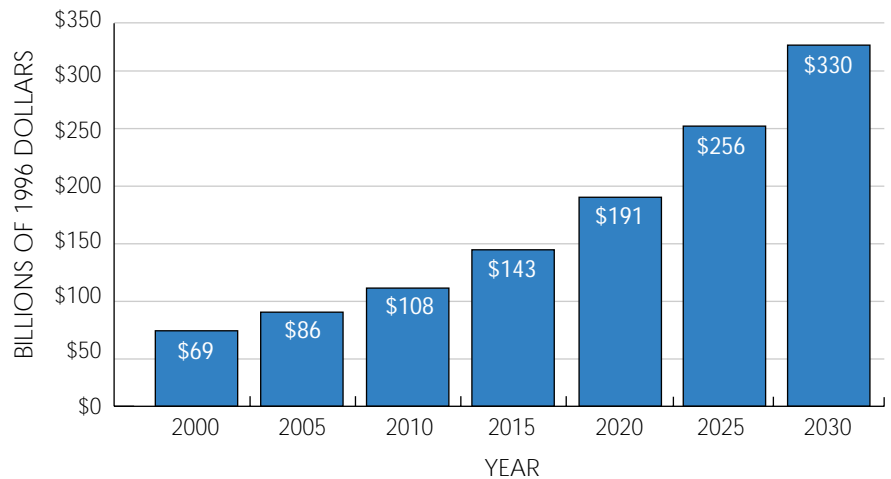
²² Zedlewski, S. & McBride, T. (1992). The Changing Profile of the Elderly: Effects on Future Long-Term Care. *The Milbank Quarterly*, 70(2).

²³ Kemper, P. & Murtaugh, C. (1991). Lifetime Use of Nursing Home Care. *The New England Journal of Medicine*.

NURSING HOME EXPENDITURES ARE PROJECTED TO INCREASE

Based on recent trends, total expenditures for nursing home care are projected to more than triple by 2030. If cures are found for particularly expensive conditions such as Alzheimer's disease, expenditures could be lower. But if other debilitating conditions affect large portions of the population, expenditures could be higher.

Figure 4-22: Total Nursing Home Expenditures

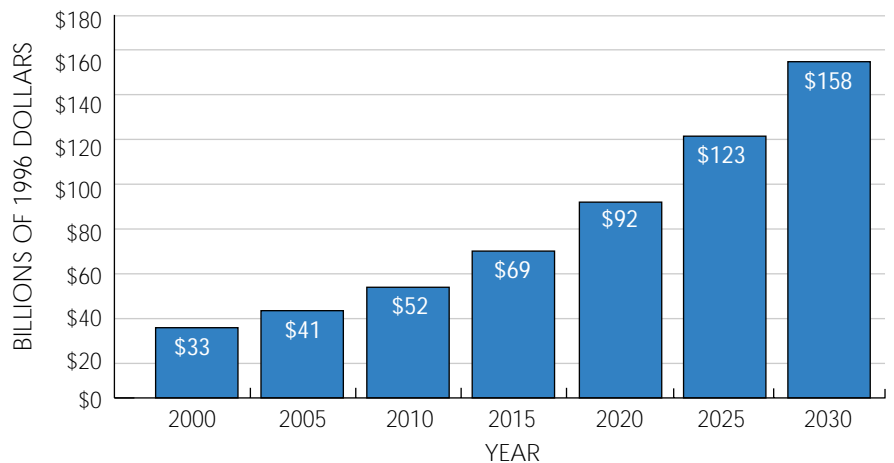


Source: American Council on Life Insurance, *Who Will Pay for the Baby Boomers' Long-Term Care Needs? Expanding the Role of Private Long-Term Care Insurance*, Figure 3, 1998.

OUT-OF-POCKET COSTS FOR NURSING HOME CARE ARE EXPECTED TO INCREASE

Nursing home residents and their families currently finance 31 percent of all nursing home expenditures. Projections suggest that, under current law, this proportion will increase to nearly 48 percent by 2030.

Figure 4-23: Out-of-Pocket Costs for Nursing Home Services



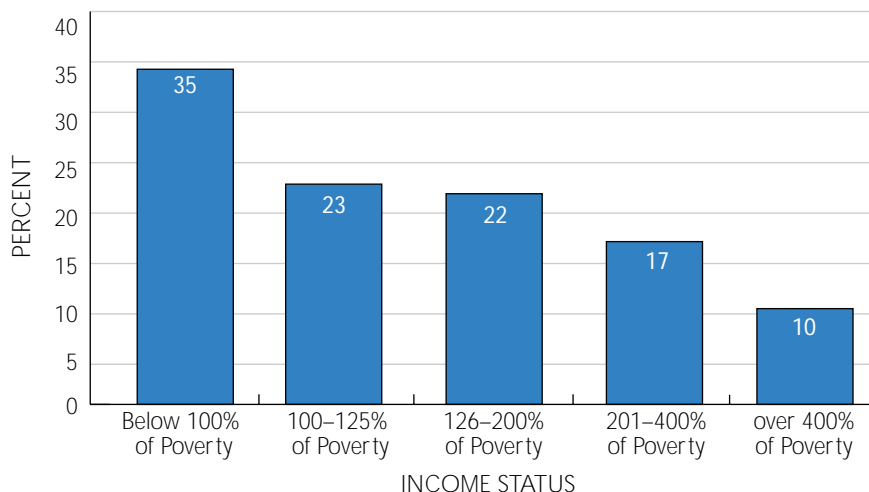
Source: American Council on Life Insurance, *Who Will Pay for the Baby Boomers' Long-Term Care Needs? Expanding the Role of Private Long-Term Care Insurance*, Figure 6, 1998.

Many Elderly People Have Substantial Health Care Expenses

If long-term care is excluded, the average elderly Medicare beneficiary spends in excess of \$2,100 for private insurance premiums, Medicare premiums, and other out-of-pocket costs.²⁴ More than half of these out-of-pocket expenditures are for private or Medicare Part B premiums. Expenditures for prescription drugs account for another 16 percent.

Out-of-pocket health care expenses, excluding long-term care, account for 19 percent of household income on average. The figure for elderly Medicare beneficiaries with household incomes below the poverty threshold is 35 percent.²⁵ The large proportion of elderly with family incomes between 100 and 200 percent of the poverty level average health care expenses of 22 to 23 percent of their income.²⁶

Figure 4-24: Average Out-of-Pocket Health Costs for Non-Institutionalized Elderly Medicare Beneficiaries as a Percent of Household Income by Income Status, 1997



Source: American Association of Retired Persons Public Policy Institute & the Lewin Group, *Out-of-Pocket Health Spending by Medicare Beneficiaries Age 65 and Older: 1997 Projections*, Figure 5.

DIFFERENT POLICIES WILL BE NEEDED FOR A DIFFERENT POPULATION

The future elderly are certain to be different from today's elderly, but since no one can yet predict exactly how they will differ, an important aspect of policies geared to the future should be flexibility. In considering the needs of the current and future elderly and the contributions they will make, it is also important to look beyond the averages and consider all segments of the population. Flexibility and comprehensiveness are two of the fundamental challenges for policy makers.

²⁴ American Association of Retired Persons Public Policy Institute & the Lewin Group. (1997). *Out-of-Pocket Health Spending by Medicare Beneficiaries Age 65 and Older: 1997 projections*. Pub. No. 9705. Washington, DC: AARP.

²⁵ The 1997 poverty threshold used was \$7,755 for individuals and \$9,780 for couples. Twice the poverty threshold for a couple is \$19,560, or \$1,630 a month.

²⁶ The average health care expense related to out-of-pocket costs is somewhat misleading. Most Medicare beneficiaries have few health care expenditures in any given year. In 1992, about 55 percent of all Medicare beneficiaries incurred less than \$500 in health expenditures; yet at the time, the average Medicare expenditure was nearly \$3,400 per beneficiary. This discrepancy arises because more than 80 percent of Medicare's expenditures are attributable to the health care needs of less than 20 percent of Medicare's beneficiaries.

Chapter V

POLICY MATTERS

In considering the potential implications of demographic projections, it is important to remember that public policy can be used to alter the future. This chapter examines policies that can change the future, and looks at the special challenges posed for the financing of Social Security, Medicare and Medicaid—all of them large federal entitlement programs. Here are the chapter's major highlights:

- Policies that promote economic growth, redistribute income, influence individual behaviors, or even affect the demographic profile of the population will all change our future.
- While recognizing that public policy can affect the future, we must also come to terms with the fact that an aging and longer living population may increase both public and private costs.
- With sufficient economic growth, which is achievable, projected government spending will be no larger as a percent of national income than it is today. Less economic growth will leave us with tough choices— involving cutting benefits or raising taxes, possibly in the context of declining living standards.
- Any reasonable economic growth will result in a wealthier nation. Public policy decisions determine whether the additional resources will be distributed and, if so, to whom.
- In evaluating the costs of social insurance programs like Medicare and Social Security it is important to consider the benefits these programs provide, and what the alternatives would be if those benefits did not exist. It should also be recognized that the financial risks associated with health care, long-term care, and retirement income generally exist regardless of financing decisions. Society will have to contend with those costs regardless of what happens to specific programs.
- While policy makers must recognize that no one can fully anticipate how markets and people will adapt to changes in the future, prudent public policy calls for action today. But, policies should be developed with the flexibility to make adjustments as circumstances change.

PUBLIC POLICY CAN AFFECT THE FUTURE

Through government there is a wide range of options to influence the decisions people and institutions make about many aspects of life. Activities such as collecting and providing information, configuring the tax code, regulating specific actions, and directly purchasing services or providing assistance to individuals can alter the manner in which Americans live.

POLICIES THAT AFFECT ECONOMIC GROWTH

Small differences in overall economic growth will dramatically alter the financial consequences of an aging society. An important goal of every nation is to promote economic growth. Hence, public policy can be expected to encourage growth, regardless of demographic change.

Projected demographic changes suggest that in the near-term there will be a relative slowdown in the growth of workers under age 50. At the same time, the work force over age 50 is expected to grow. These changes suggest that public policies should be considered that increase the skills and productivity of older workers in the near-term and younger workers in the future. These include efforts to improve early childhood development, education, training, and life-long learning. In addition, public policies could be considered that encourage and support employment opportunities for older workers without penalizing those unable or unwilling to continue working.

Public policy can influence technology in ways that will improve labor productivity. Tax policy concerning research and development and patent laws, as well as policies affecting international trade, for example, can influence entrepreneurial efforts and employment opportunities. Government also plays a direct role in encouraging scientific and technological advancement, by financing the basic research and development that is then made available to private enterprises.

POLICIES THAT REDISTRIBUTE INCOME

A central function of government has been to support economic growth and prosperity among the citizenry. In a market-based economy, government works towards improving the inherent efficiencies of the private market. All market-based economies recognize that some redistribution of income is necessary, however. Redistribution may be used to improve market efficiency, to provide a safeguard for some of the unjust aspects of a market-based economy, or to better spread the risks that people face. Public assistance and social insurance programs

are generally used to achieve these goals.

The majority of redistributive spending in the United States is for social insurance programs such as Social Security, Disability Insurance, Unemployment Insurance, Workman’s Compensation, and Medicare. The United States has a long history of providing social insurance and income security. Even before passage of the Social Security Act in 1935, for example, states had various versions of unemployment insurance and workers compensation. A few states were even developing old-age assistance programs, and all states had public laws and programs to provide assistance with food, shelter, and medical care to people with few resources of their own. Social insurance and public assistance programs offer a minimum level of protection to workers and their dependents when a worker is unemployed, injured, becomes disabled, or dies prior to retirement. Social Security also provides a public pension for retirees and a survivor’s benefit for retirees’ widows. Medicare, with help from Medicaid, enhances access to health care, regardless of ability to pay or health status. Public assistance programs also redistribute income and provide a measure of security against absolute destitution.

While some aspects of the risks covered by social insurance and public assistance programs are also covered by private insurance, the government-sponsored programs have provisions that are not likely to be replicated by private insurance plans. For example, although the private market competes to sell annuities, there is no private market annuity that will increase with inflation and continue to pay throughout a person’s life. Social Security’s Old Age Assistance does exactly that—providing a true lifetime inflation-adjusted annuity. And although the private market competes to sell health insurance, a competitive market cannot offer a policy open to everyone at the same price regardless of health status, as Medicare does.

POLICIES THAT INFLUENCE BEHAVIOR

Social insurance and public assistance programs define both individual and collective responsibility. Social insurance programs provide a floor of protection upon which private voluntary actions can build and enhance financial and health security. Information, regulation, grants, and tax policy are among the primary public policy tools. In addition, public policies and public resources can be used to encourage individuals to increase savings or investments; to pursue higher education; to enter or leave the work force at specific times; and to purchase health insurance, life insurance, disability insurance, or long-term care insurance.

Tax policy, for example, is used explicitly to influence home ownership (a specific form of savings) as well as saving for retirement. Currently, the Department of Labor is mounting a public education campaign to

encourage workers to save for their retirement. Tax policies also affect employer-provided benefit programs, including pensions and post-retirement medical benefits. In addition, public policy affects the types of insurance products offered in the private market. The availability of low-risk government bonds as well as inflation-adjusted bonds reflect policy decisions directed at helping individuals save and institutions diversify portfolios. And government-sponsored education loans encourage the pursuit of higher education.

POLICIES THAT AFFECT DEMOGRAPHY

Public policy can affect demography itself. China provides an extreme example, where each family is allowed, by law, to have only one child. This policy will have a dramatic impact on the future size and age distribution of the population in China. Less extreme policies can influence the future size and age distribution of the population in the United States. These include policies that affect immigration, public health, individual health behaviors, investments in scientific research for biomedical breakthroughs that directly affect mortality or fertility rates, and policies that affect individual access to medical care. Tax policy can also be used to encourage families to have children. Currently, for example, family income subject to federal income taxes is adjusted for the number of children using both deductions and credits. Deductions for some child care expenses are also allowed. Immigration policy can affect both the number and age distribution of people living in the country by controlling how many and what types of people can enter.

Improvements in public health—including activities that ensure safe air and water, immunize the population, and promote certain healthy behaviors—have increased life expectancy in the United States. Improvement in life expectancy can also be traced to the dramatic reduction in infant mortality brought about by better diet, prenatal care, and the medical technology to support perinatal care. Premature babies, whose survival would have been considered a miracle ten years ago, routinely survive and thrive today.

Scientific and technological advances have also improved care later in life. More diseases can be diagnosed and treated today than in the past. And many more people live with illnesses that would have been fatal earlier in the century. Direct government-financed scientific research has contributed to advances in medical science. Similarly, scientific breakthroughs have led to commercial applications, at least in part because of tax and patent law policies that encourage corporate research and development. These policies, in conjunction with government efforts to increase individual access to medical care, will almost certainly continue to improve the life expectancy of older people in the future.

THE CHALLENGE POSED BY FEDERAL ENTITLEMENT PROGRAMS

While it is important to recognize that public policy can affect the future, it is also important to come to terms with the fact that an aging and longer-living population may increase public and private costs. Much of the concern over the anticipated growth in the elderly population is related to anxiety about federal entitlement program spending. More elderly will result in more claims against Social Security and Medicare. More elderly will probably also mean more claims on Medicaid for long-term care, unless there are dramatic changes in the way long-term care is financed. Rising numbers of beneficiaries means more federal expenditures.

The federal budget is just one facet of the economy, however. As noted earlier, the economy is likely to grow even as federal expenditures grow. With sufficient economic growth (2.8 percent a year as noted in Chapter Three), projected federal, state, and local government spending will not be any larger as a percent of national income than it is today. Lower economic growth will mean expenditures for government programs that account for an increased share of national income, requiring tough choices in cutting benefits or raising taxes in order to raise the needed revenues.

The challenge posed by federal entitlement programs is how the expected increase in entitlement expenditures compares to the expected increase in the nation's wealth. Any reasonable assumption about economic growth suggests that the economy of 2030 will be substantially larger than the economy of 1999. Moreover, under most assumptions this increase in the economy will be larger than the increase in expenditures. The public policy question is how much of this economic growth should be distributed towards future beneficiaries.

In addition to evaluating the costs of programs like Medicare and Social Security, it is important to consider the benefits these programs provide and what the alternatives would be if those benefits did not exist. For example, while Social Security expenditures are large, the program provides the means for many elderly people to live independently. Without it, or with a less generous program, more of the elderly would be forced to live with their adult children. Younger workers may be willing to contribute more taxes to support federal programs if they conclude that the only alternative is to have their parent and in-laws live with them. Similarly, they may be willing to pay more to support Medicare coverage of health care products and services that enable their parents to live more independently and enjoy a better quality of life. Regardless of what is decided about the distribution of future economic growth, millions of people will need health care or long-term care. In fact, everyone is at risk of needing such care, and the costs of care are extraordinarily large.

The question of how to finance Social Security and Medicare is only one part of the broader discussion about how best to insure risks. Regardless of how program-specific financing questions are resolved, families and communities will still face a wide array of issues arising from the aging of society that will not be addressed by entitlement reforms. Communities already face the challenges of educating a growing number of children to meet the labor market needs of the future, while serving a growing number of social service needs. Employers are beginning to face relative shortages of entry-level workers, especially very skilled workers, while continuing to encourage older workers to retire. Older workers are having to balance financial incentives to leave the labor force with concerns that they will not have sufficient resources to support their retirement (or that complete retirement may leave a void in their lives). All individuals face tremendous uncertainty about whether they will be healthy in later years and whether they will have the financial resources or insurance to pay for the care they may need. Some families continue to struggle to arrange for nurturing, safe, and affordable childcare. Others seek safe and appropriate long-term care. Still others must find both types of care. Issues related to housing, transportation, and the economic vitality of the community are all affected by society's aging.

HOW MUCH WILL THE ECONOMY HAVE TO GROW TO SUPPORT THE RETIREMENT OF THE BABY-BOOM?

Between 1998 and 2030 the number of Social Security or Medicare beneficiaries is expected to double. Program expenditures, according to the Congressional Budget Office, are expected to much more than double, increasing nearly 167 percent (adjusted for inflation). Can society handle this increase in Medicare and Social Security expenditures? If national income increases 167 percent or more, then the answer is clearly yes. National income (adjusted for inflation) will increase 167 percent if real economic growth over the next 32 years averages 1.6 percent per year. In the past 32 years real economic growth has averaged 2.9 percent per year. If society can afford these programs today at prevailing growth rates there is little reason to suggest that society cannot afford them tomorrow.

If national income does not increase as much as 167 percent, the question of affordability is more complicated. Policy makers will be forced to increase taxes, cut benefits, or reduce other government activities.

MAKING RATIONAL PUBLIC POLICY CHOICES

While demography will affect the future, society's destiny is not determined solely by demographic changes. A growing number of economists and demographers have begun to systematically evaluate the nearly simultaneous relationship among demographic changes, the economy, and family formation. Individual responses culminate in societal responses that can affect the labor market, the market for goods and services, living arrangements, and public policy. The economy, public policy, and the adaptations individuals and institutions make will also affect

the future. Consequently, anticipating the future simply by focusing on the anticipated growth and changing age distribution of the population in the future is much too simplistic to be useful.

Public policy can change expectations, and changing expectations can influence how people behave in the various spheres in which they operate. Public policy can also provide the information and incentives for people, communities, and institutions to invest in the future in ways that will support economic growth. And public policy can help direct resources to those with the greatest need, and can insure risks that are not insurable in the private market. Through deliberate and incremental actions, public policy can affect educational attainment, family formation, labor force participation, and the demand for goods and services upon which economic growth depends.

Much of what will occur in the future and how certain changes will affect the rest of society is not yet known. This is not to suggest, however, that no action is warranted. Rather, it suggests that policy makers must decide on policies today, but recognize at the same time that policies must change as everything else changes. Specific programs will have to be adjusted over time as circumstances change. Anticipating the future and acting accordingly will change the future itself.

IS THERE A LIMIT ON FEDERAL TAXES?

Some have argued that the public will not tolerate federal expenditures in excess of 20 percent of national income. Those who make this argument actually look at federal expenditures, which reflect taxes. They note that there have been few times in which federal expenditures as a percent of national income exceeded 20 percent, and that each time federal expenditures have quickly fallen back below 20 percent. The implication these observers draw is that policy makers chose to cut federal expenditures because expenditures had reached a threshold the public would not tolerate.

A closer look at the history and timing of tax law changes does not fully support this notion. Regardless of the absolute or relative level of taxes or expenditures, there has always been political pressure to avoid raising taxes as well as pressure to cut taxes. But, neither tax rates nor government spending were typically cut when government expenditures exceeded 20 percent of national income.¹ The proportion usually fell again because economic growth increased national income faster than the government increased expenditures.

There may very well be a limit to the level of taxes the public will tolerate, but it is not clear that 20 percent is that limit. Data from thirty years ago, for example, could have been used to support the claim that federal expenditures could not rise above 15 percent of national income, which is clearly false. Perhaps the question for the public has more to do with what government is doing with the taxes, than the relative size of government. After all, we are the government, the employers, and the taxpayers. But over a lifetime, we are also the children, the parents, and finally the seniors in families and communities.

¹ Bipartisan Commission on Entitlement and Tax Reform. (1994). *Interim Report to the President*. Washington, DC: U.S. Government Printing Office.

Detailed Tables of Time-Series Figures

The following tables provide the data for all of the time-series figures presented in the report. For easy reference the figure numbers and titles in this section reflect those of the figures in the report.

Figure 2-2: Life Expectancy for Men and Women at Age 65

| | Men (Years of Life) | Women (Years of Life) |
|-------------|--------------------------------|----------------------------------|
| 1940 | 11.9 | 13.4 |
| 1945 | 12.6 | 14.4 |
| 1950 | 12.8 | 15.1 |
| 1955 | 13.1 | 15.6 |
| 1960 | 12.9 | 15.9 |
| 1965 | 12.9 | 16.3 |
| 1970 | 13.1 | 17.1 |
| 1975 | 13.7 | 18.0 |
| 1976 | 13.7 | 18.1 |
| 1977 | 13.9 | 18.3 |
| 1978 | 13.9 | 18.3 |
| 1979 | 14.2 | 18.6 |
| 1980 | 14.0 | 18.4 |
| 1981 | 14.2 | 18.6 |
| 1982 | 14.5 | 18.8 |
| 1983 | 14.3 | 18.6 |
| 1984 | 14.4 | 18.7 |
| 1985 | 14.4 | 18.6 |
| 1986 | 14.5 | 18.7 |
| 1987 | 14.6 | 18.7 |
| 1988 | 14.6 | 18.7 |
| 1989 | 14.8 | 18.9 |
| 1990 | 15.0 | 19.0 |
| 1991 | 15.1 | 19.1 |
| 1992 | 15.2 | 19.2 |
| 1993 | 15.1 | 19.0 |
| 1994 | 15.3 | 19.0 |
| 1995 | 15.6 | 19.0 |
| 1996 | 15.5 | 19.2 |

Source: The Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. (April 1997). *The 1997 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds*. Washington DC: Table II.D2.

Note: The life expectancy for any year is the average number of years of life remaining for a person if that person were to experience the death rates by age observed in, or assumed for, the selected year.

Figure 2-3: Number of Live Births

| Number of Live Births (In Thousands) | | Number of Live Births (In Thousands) | |
|---|--------------|---|--------------|
| 1945 | 2,858 | 1971 | 3,556 |
| 1946 | 3,411 | 1972 | 3,258 |
| 1947 | 3,817 | 1973 | 3,137 |
| 1948 | 3,637 | 1974 | 3,160 |
| 1949 | 3,649 | 1975 | 3,144 |
| 1950 | 3,632 | 1976 | 3,168 |
| 1951 | 3,823 | 1977 | 3,327 |
| 1952 | 3,913 | 1978 | 3,333 |
| 1953 | 3,965 | 1979 | 3,494 |
| 1954 | 4,078 | 1980 | 3,612 |
| 1955 | 4,104 | 1981 | 3,629 |
| 1956 | 4,218 | 1982 | 3,681 |
| 1957 | 4,308 | 1983 | 3,639 |
| 1958 | 4,255 | 1984 | 3,669 |
| 1959 | 4,245 | 1985 | 3,761 |
| 1960 | 4,258 | 1986 | 3,757 |
| 1961 | 4,268 | 1987 | 3,809 |
| 1962 | 4,167 | 1988 | 3,910 |
| 1963 | 4,098 | 1989 | 4,041 |
| 1964 | 4,027 | 1990 | 4,158 |
| 1965 | 3,760 | 1991 | 4,111 |
| 1966 | 3,606 | 1992 | 4,065 |
| 1967 | 3,521 | 1993 | 4,000 |
| 1968 | 3,502 | 1994 | 3,853 |
| 1969 | 3,600 | 1995 | 3,900 |
| 1970 | 3,731 | 1996 | 3,915 |

Source: U.S. Census Bureau, *Historical Statistics of the United States: Colonial Times to 1970*, Series B-14, 1975.

National Center for Health Statistics, *Monthly Vital Statistics Report*, Vol. 45, No. 11 (S).

Figure 2-4: Population Pyramids, 1950 to 2030 (Number in Thousands)

| Age | 1950 | | 1998 | | 2030 | |
|----------|-------|--------|--------|--------|--------|--------|
| | Male | Female | Male | Female | Male | Female |
| Under 5 | 8,362 | 8,048 | 9,780 | 9,336 | 11,813 | 11,253 |
| 5 to 9 | 6,811 | 6,564 | 10,252 | 9,773 | 11,730 | 11,159 |
| 10 to 14 | 5,707 | 5,506 | 9,920 | 9,451 | 11,979 | 11,398 |
| 15 to 19 | 5,381 | 5,294 | 9,955 | 9,470 | 12,064 | 11,472 |
| 20 to 24 | 5,794 | 5,886 | 8,853 | 8,598 | 11,363 | 11,038 |
| 25 to 29 | 6,071 | 6,291 | 9,279 | 9,289 | 10,567 | 10,623 |
| 30 to 34 | 5,733 | 5,942 | 10,046 | 10,143 | 10,648 | 10,906 |
| 35 to 39 | 5,585 | 5,762 | 11,246 | 11,333 | 11,047 | 11,349 |
| 40 to 44 | 5,121 | 5,169 | 10,798 | 11,013 | 10,728 | 11,139 |
| 45 to 49 | 4,566 | 4,576 | 9,225 | 9,588 | 9,905 | 10,446 |
| 50 to 54 | 4,149 | 4,162 | 7,635 | 8,071 | 8,949 | 9,597 |
| 55 to 59 | 3,656 | 3,637 | 5,957 | 6,443 | 8,568 | 9,284 |
| 60 to 64 | 3,058 | 3,045 | 4,847 | 5,413 | 8,873 | 9,623 |
| 65 to 69 | 2,447 | 2,602 | 4,378 | 5,194 | 9,387 | 10,246 |
| 70 to 74 | 1,644 | 1,800 | 3,846 | 4,947 | 8,491 | 9,283 |
| 75 to 79 | 1,005 | 1,150 | 2,983 | 4,221 | 6,561 | 7,401 |
| 80 to 84 | 518 | 642 | 1,747 | 2,973 | 4,257 | 5,298 |
| 85 + | 243 | 347 | 1,134 | 2,862 | 3,021 | 5,433 |

Source: U.S. Census Bureau. *Historical Statistics of the United States: Colonial Times to 1970*, Series A119-134, 1975.

U.S. Census Bureau. *Population Projections of the United States by Age, Race, Sex, and Hispanic Origin: 1995 to 2050*. P25-1130, Table 2, 1996.

Figure 2-7: Population by Age: Alternative Census Bureau Projections (Number in Thousands)

| | Total Population (Low) | Total Non-Elderly Population (Low) | Total Population (High) | Total Non-Elderly Population (High) |
|------|------------------------|------------------------------------|-------------------------|-------------------------------------|
| 2000 | 271,237 | 236,953 | 278,129 | 242,964 |
| 2010 | 281,468 | 244,306 | 314,571 | 272,893 |
| 2020 | 288,807 | 241,004 | 357,702 | 299,302 |
| 2030 | 291,070 | 232,201 | 405,089 | 325,760 |
| 2040 | 287,685 | 229,231 | 458,444 | 366,521 |

Source: U.S. Census Bureau. *Population Projections of the United States by Age, Race, Sex, and Hispanic Origin: 1995 to 2050*, P25-1130, Table F, 1996.

Figure 2-8: Projections Change over Time

| | 1981 Projections (Number of Births Per Woman Age 15 to 44) | Actual Rates (Number of Births Per Woman Age 15 to 44) | 1997 Projections (Number of Births Per Woman Age 15 to 44) |
|-------------|---|---|---|
| 1980 | 1.85 | 1.85 | |
| 1985 | 1.89 | 1.84 | |
| 1990 | 1.95 | 2.07 | |
| 1995 | 2.00 | 2.02 | |
| 2000 | 2.05 | | 2.00 |
| 2010 | 2.10 | | 1.95 |
| 2020 | 2.10 | | 1.90 |
| 2030 | 2.10 | | 1.90 |
| 2040 | 2.10 | | 1.90 |

Source: *The 1981 and 1997 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds.*

Figure 2-9: Past and Projected Population Age 65 and Older

| | Historical (Number in Thousands) | Lowest Series (Number in Thousands) | Middle Series (Number in Thousands) | Highest Series (Number in Thousands) |
|-------------|---|--|--|---|
| 1960 | 16,560 | | | |
| 1970 | 19,980 | | | |
| 1980 | 25,550 | | | |
| 1990 | 31,079 | | | |
| 2000 | | 34,284 | 34,709 | 35,165 |
| 2010 | | 37,162 | 39,408 | 41,678 |
| 2020 | | 47,803 | 53,220 | 58,400 |
| 2030 | | 58,869 | 69,379 | 79,329 |
| 2040 | | 58,454 | 75,233 | 91,923 |

Source: U.S. Census Bureau, *65+ in the United States*, P23-190, Table 2-1, 1996.

U.S. Census Bureau, *Population Projections of the United States by Age, Race, Sex, and Hispanic Origin: 1995 to 2050*, P25-1130, Table F, 1996.

Figure 2-10: Past and Projected Population Age 85 and Older

| | Historical (Number in Thousands) | Lowest Series (Number in Thousands) | Middle Series (Number in Thousands) | Highest Series (Number in Thousands) |
|-------------|---|--|--|---|
| 1960 | 929 | | | |
| 1970 | 1,409 | | | |
| 1980 | 2,240 | | | |
| 1990 | 3,021 | | | |
| 2000 | | 4,148 | 4,259 | 4,399 |
| 2010 | | 5,005 | 5,671 | 6,518 |
| 2020 | | 4,987 | 6,460 | 8,456 |
| 2030 | | 5,776 | 8,455 | 12,198 |
| 2040 | | 8,250 | 13,552 | 20,920 |

Source: U.S. Census Bureau, *65+ in the United States*, P23-190, Table 2-1, 1996.

U.S. Census Bureau, *Population Projections of the United States by Age, Race, Sex, and Hispanic Origin: 1995 to 2050*, P25-1130, Table F, 1996.

Figure 2-11: Number of Elderly per 100 Workers Age 20 to 64: Three Projections

| | Low Cost | Intermediate Cost | High Cost |
|-------------|-----------------|--------------------------|------------------|
| 2000 | 20.9 | 21.1 | 21.2 |
| 2010 | 20.6 | 21.4 | 22.2 |
| 2020 | 25.8 | 27.5 | 29.0 |
| 2030 | 32.3 | 35.5 | 38.9 |
| 2040 | 31.9 | 36.9 | 42.6 |

Source: *1997 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds*, Table II.H1.

Note: These three projections are based on values relating to future trends in certain key factors that affect the balance in the Social Security Trust Funds. The "low cost" set assumes relatively rapid economic growth, low inflation, and favorable demographic conditions. The "intermediate" set of assumptions represents the Social Security Trustees "best estimates" of likely future economic and demographic conditions. The "high cost" set assumes slow economic growth, more rapid inflation, and financially disadvantageous demographic conditions.

Figure 3-1: Real GDP from 1929 to 1997

| Real GDP (Billions of 1992 Dollars) | | Real GDP (Billions of 1992 Dollars) | |
|---|---------|---|-----------|
| 1929 | \$790.9 | 1964 | \$2,708.4 |
| 1930 | 719.7 | 1965 | 2,881.1 |
| 1931 | 674.0 | 1966 | 3,069.2 |
| 1932 | 584.3 | 1967 | 3,147.2 |
| 1933 | 577.3 | 1968 | 3,293.9 |
| 1934 | 641.1 | 1969 | 3,393.6 |
| 1935 | 698.4 | 1970 | 3,397.6 |
| 1936 | 790.0 | 1971 | 3,510.0 |
| 1937 | 831.5 | 1972 | 3,702.3 |
| 1938 | 801.2 | 1973 | 3,916.3 |
| 1939 | 866.5 | 1974 | 3,891.2 |
| 1940 | 941.2 | 1975 | 3,873.9 |
| 1941 | 1,101.8 | 1976 | 4,082.9 |
| 1942 | 1,308.9 | 1977 | 4,273.6 |
| 1943 | 1,523.0 | 1978 | 4,503.0 |
| 1944 | 1,644.7 | 1979 | 4,630.6 |
| 1945 | 1,626.7 | 1980 | 4,615.0 |
| 1946 | 1,447.7 | 1981 | 4,720.7 |
| 1947 | 1,430.7 | 1982 | 4,620.3 |
| 1948 | 1,491.0 | 1983 | 4,803.7 |
| 1949 | 1,479.8 | 1984 | 5,140.1 |
| 1950 | 1,611.3 | 1985 | 5,323.5 |
| 1951 | 1,734.0 | 1986 | 5,487.7 |
| 1952 | 1,798.7 | 1987 | 5,649.5 |
| 1953 | 1,881.4 | 1988 | 5,865.2 |
| 1954 | 1,868.2 | 1989 | 6,062.0 |
| 1955 | 2,001.1 | 1990 | 6,136.3 |
| 1956 | 2,040.2 | 1991 | 6,079.4 |
| 1957 | 2,078.5 | 1992 | 6,244.4 |
| 1958 | 2,057.5 | 1993 | 6,389.6 |
| 1959 | 2,210.2 | 1994 | 6,610.7 |
| 1960 | 2,262.9 | 1995 | 6,761.7 |
| 1961 | 2,314.3 | 1996 | 6,994.8 |
| 1962 | 2,454.8 | 1997 | 7,269.8 |
| 1963 | 2,559.4 | | |

Source: Bureau of Economic Analysis, *National Income Product Accounts*, October 1998.

Figure 3-2: GDP Per Capita

| GDP Per Capita (1992 Dollars) | | GDP Per Capita (1992 Dollars) | |
|----------------------------------|------------|----------------------------------|-------------|
| 1929 | \$6,495.19 | 1964 | \$14,114.41 |
| 1930 | 5,847.56 | 1965 | 14,827.87 |
| 1931 | 5,433.73 | 1966 | 15,614.57 |
| 1932 | 4,680.39 | 1967 | 15,838.00 |
| 1933 | 4,597.11 | 1968 | 16,411.57 |
| 1934 | 5,073.04 | 1969 | 16,743.88 |
| 1935 | 5,488.41 | 1970 | 16,569.46 |
| 1936 | 6,169.32 | 1971 | 16,902.55 |
| 1937 | 6,454.49 | 1972 | 17,638.74 |
| 1938 | 6,171.38 | 1973 | 18,481.05 |
| 1939 | 6,620.57 | 1974 | 18,195.59 |
| 1940 | 7,123.72 | 1975 | 17,936.96 |
| 1941 | 8,259.25 | 1976 | 18,725.89 |
| 1942 | 9,705.62 | 1977 | 19,404.37 |
| 1943 | 11,138.01 | 1978 | 20,230.47 |
| 1944 | 11,883.93 | 1979 | 20,575.41 |
| 1945 | 11,625.26 | 1980 | 20,310.27 |
| 1946 | 10,239.13 | 1981 | 20,572.55 |
| 1947 | 9,926.73 | 1982 | 19,943.97 |
| 1948 | 10,168.38 | 1983 | 20,546.90 |
| 1949 | 9,919.03 | 1984 | 21,796.25 |
| 1950 | 10,581.79 | 1985 | 22,374.79 |
| 1951 | 11,195.91 | 1986 | 22,852.75 |
| 1952 | 11,416.48 | 1987 | 23,317.20 |
| 1953 | 11,745.24 | 1988 | 23,988.65 |
| 1954 | 11,459.52 | 1989 | 24,560.51 |
| 1955 | 12,059.83 | 1990 | 24,600.30 |
| 1956 | 12,079.12 | 1991 | 24,112.74 |
| 1957 | 12,085.43 | 1992 | 24,487.65 |
| 1958 | 11,765.08 | 1993 | 24,789.62 |
| 1959 | 12,428.72 | 1994 | 25,397.25 |
| 1960 | 12,524.98 | 1995 | 25,733.27 |
| 1961 | 12,598.88 | 1996 | 26,377.65 |
| 1962 | 13,159.79 | 1997 | 27,163.01 |
| 1963 | 13,524.48 | | |

Source: www.census.gov/population/estimates/nation/popclockest.txt, October 1998.

Bureau of Economic Analysis, *National Income Product Accounts*, October 1998.

Figure 3-3: Past and Projected Real GDP

| Past Real GDP (Billions of 1992 Dollars) | | Projected Real GDP (Billions of 1992 Dollars) | |
|---|-----------|--|--------------------------------------|
| | | Assuming Real Growth of 1 Percent | Assuming Real Growth of 3 Percent |
| 1950 | \$1,611.3 | 1998 | \$7,342.5 |
| 1951 | 1,734.0 | 1999 | 7,415.9 |
| 1952 | 1,798.7 | 2000 | 7,490.1 |
| 1953 | 1,881.4 | 2001 | 7,565.0 |
| 1954 | 1,868.2 | 2002 | 7,640.6 |
| 1955 | 2,001.1 | 2003 | 7,717.0 |
| 1956 | 2,040.2 | 2004 | 7,794.2 |
| 1957 | 2,078.5 | 2005 | 7,872.2 |
| 1958 | 2,057.5 | 2006 | 7,950.9 |
| 1959 | 2,210.2 | 2007 | 8,030.4 |
| 1960 | 2,262.9 | 2008 | 8,110.7 |
| 1961 | 2,314.3 | 2009 | 8,191.8 |
| 1962 | 2,454.8 | 2010 | 8,273.7 |
| 1963 | 2,559.4 | 2011 | 8,356.4 |
| 1964 | 2,708.4 | 2012 | 8,440.0 |
| 1965 | 2,881.1 | 2013 | 8,524.4 |
| 1966 | 3,069.2 | 2014 | 8,609.7 |
| 1967 | 3,147.2 | 2015 | 8,695.8 |
| 1968 | 3,293.9 | 2016 | 8,782.7 |
| 1969 | 3,393.6 | 2017 | 8,870.5 |
| 1970 | 3,397.6 | 2018 | 8,959.2 |
| 1971 | 3,510.0 | 2019 | 9,048.8 |
| 1972 | 3,702.3 | 2020 | 9,139.3 |
| 1973 | 3,916.3 | 2021 | 9,230.7 |
| 1974 | 3,891.2 | 2022 | 9,323.0 |
| 1975 | 3,873.9 | 2023 | 9,416.3 |
| 1976 | 4,082.9 | 2024 | 9,510.4 |
| 1977 | 4,273.6 | 2025 | 9,605.5 |
| 1978 | 4,503.0 | 2026 | 9,701.6 |
| 1979 | 4,630.6 | 2027 | 9,798.6 |
| 1980 | 4,615.0 | 2028 | 9,896.6 |
| 1981 | 4,720.7 | 2029 | 9,995.5 |
| 1982 | 4,620.3 | 2030 | 10,095.5 |
| 1983 | 4,803.7 | | |
| 1984 | 5,140.1 | | |
| 1985 | 5,323.5 | | |
| 1986 | 5,487.7 | | |
| 1987 | 5,649.5 | | |
| 1988 | 5,865.2 | | |
| 1989 | 6,062.0 | | |
| 1990 | 6,136.3 | | |
| 1991 | 6,079.4 | | |
| 1992 | 6,244.4 | | |
| 1993 | 6,389.6 | | |
| 1994 | 6,610.7 | | |
| 1995 | 6,761.7 | | |
| 1996 | 6,994.8 | | |
| 1997 | 7,269.8 | | |

Source: Bureau of Economic Analysis, *National Income Product Accounts*, October 1998 and NAAS calculations.

Figure 3-4: Federal, State, and Local Government Expenditures as a Percentage of Gross Domestic Product

| | State and Local Government (Percent of GDP) | Federal Government (Percent of GDP) | Total Government (Percent of GDP) |
|------|--|--|--------------------------------------|
| 1950 | 7.0 | 8.9 | 16.0 |
| 1951 | 6.8 | 13.3 | 20.1 |
| 1952 | 6.8 | 16.6 | 23.4 |
| 1953 | 6.9 | 17.0 | 23.9 |
| 1954 | 7.6 | 15.1 | 22.7 |
| 1955 | 7.6 | 13.2 | 20.9 |
| 1956 | 7.9 | 12.9 | 20.9 |
| 1957 | 8.4 | 13.3 | 21.6 |
| 1958 | 9.1 | 13.7 | 22.7 |
| 1959 | 8.8 | 13.2 | 22.1 |
| 1960 | 9.0 | 12.5 | 21.5 |
| 1961 | 9.5 | 12.7 | 22.2 |
| 1962 | 9.4 | 13.1 | 22.5 |
| 1963 | 9.7 | 12.6 | 22.3 |
| 1964 | 9.5 | 11.6 | 21.1 |
| 1965 | 9.9 | 11.4 | 21.3 |
| 1966 | 10.1 | 11.9 | 22.0 |
| 1967 | 10.6 | 12.8 | 23.4 |
| 1968 | 10.8 | 12.5 | 23.3 |
| 1969 | 11.0 | 11.8 | 22.8 |
| 1970 | 11.6 | 11.2 | 22.8 |
| 1971 | 11.8 | 10.4 | 22.2 |
| 1972 | 11.6 | 10.1 | 21.7 |
| 1973 | 11.5 | 9.3 | 20.8 |
| 1974 | 12.2 | 9.3 | 21.6 |
| 1975 | 12.8 | 9.5 | 22.2 |
| 1976 | 12.3 | 8.9 | 21.2 |
| 1977 | 11.8 | 8.8 | 20.6 |
| 1978 | 11.5 | 8.5 | 20.0 |
| 1979 | 11.4 | 8.4 | 19.8 |
| 1980 | 11.7 | 8.9 | 20.6 |
| 1981 | 11.2 | 9.1 | 20.3 |
| 1982 | 11.5 | 9.7 | 21.1 |
| 1983 | 11.1 | 9.8 | 20.9 |
| 1984 | 10.9 | 9.5 | 20.4 |
| 1985 | 11.1 | 9.8 | 20.9 |
| 1986 | 11.4 | 9.8 | 21.2 |
| 1987 | 11.4 | 9.7 | 21.2 |
| 1988 | 11.4 | 9.1 | 20.4 |
| 1989 | 11.4 | 8.8 | 20.1 |
| 1990 | 11.7 | 8.8 | 20.5 |
| 1991 | 11.9 | 8.8 | 20.7 |
| 1992 | 11.8 | 8.5 | 20.2 |
| 1993 | 11.7 | 7.9 | 19.6 |
| 1994 | 11.6 | 7.3 | 18.9 |
| 1995 | 11.6 | 7.0 | 18.7 |
| 1996 | 11.6 | 6.8 | 18.4 |

Source: Bureau of Economic Analysis, *Survey of Current Business*, August 1997.

Figure 3-5: State and Local Government Expenditures as a Percentage of Total Government Expenditures

| State and Local Government Expenditures (Percent of Total Expenditures) | | State and Local Government Expenditures (Percent of Total Expenditures) | |
|--|-------------|--|-------------|
| 1960 | 31.6 | 1979 | 38.3 |
| 1961 | 32.1 | 1980 | 36.5 |
| 1962 | 31.7 | 1981 | 35.1 |
| 1963 | 32.3 | 1982 | 33.9 |
| 1964 | 33.3 | 1983 | 33.3 |
| 1965 | 33.9 | 1984 | 33.4 |
| 1966 | 33.7 | 1985 | 33.4 |
| 1967 | 33.3 | 1986 | 34.1 |
| 1968 | 33.9 | 1987 | 34.7 |
| 1969 | 35.5 | 1988 | 35.1 |
| 1970 | 36.9 | 1989 | 35.3 |
| 1971 | 38.3 | 1990 | 36.0 |
| 1972 | 38.9 | 1991 | 37.3 |
| 1973 | 39.3 | 1992 | 36.7 |
| 1974 | 38.8 | 1993 | 37.6 |
| 1975 | 38.5 | 1994 | 38.5 |
| 1976 | 39.1 | 1995 | 38.6 |
| 1977 | 39.2 | 1996 | 38.8 |
| 1978 | 39.0 | 1997 | 39.1 |

Source: Council of Economic Advisors, *Economic Report of the President*, February 1998, Table B-83.

Figure 3-6: Federal Expenditures, 1962 to 1998

| | Social Security | Medicare | Medicaid | Other Mandatory Programs | Defense | Other Discretionary Programs | Net Interest | Total |
|------|-----------------|----------|----------|--------------------------|---------|------------------------------|--------------|---------|
| 1962 | \$14.0 | \$0.0 | \$0.1 | \$20.6 | \$52.6 | \$19.5 | \$6.9 | \$106.8 |
| 1963 | 15.5 | 0.0 | 0.2 | 20.5 | 53.7 | 21.5 | 7.7 | 111.3 |
| 1964 | 16.2 | 0.0 | 0.2 | 22.5 | 55.0 | 24.1 | 8.2 | 118.5 |
| 1965 | 17.1 | 0.0 | 0.3 | 22.3 | 51.0 | 26.8 | 8.6 | 118.2 |
| 1966 | 20.3 | 0.5 | 0.8 | 21.8 | 59.0 | 31.2 | 9.4 | 134.5 |
| 1967 | 21.3 | 3.2 | 1.2 | 25.2 | 72.0 | 34.4 | 10.3 | 157.5 |
| 1968 | 23.3 | 5.1 | 1.8 | 29.5 | 82.2 | 35.8 | 11.1 | 178.1 |
| 1969 | 26.7 | 6.3 | 2.3 | 29.4 | 82.7 | 34.6 | 12.7 | 183.6 |
| 1970 | 29.6 | 6.8 | 2.7 | 33.5 | 81.9 | 38.3 | 14.4 | 195.6 |
| 1971 | 35.1 | 7.5 | 3.4 | 40.9 | 79.0 | 43.5 | 14.8 | 210.2 |
| 1972 | 39.4 | 8.4 | 4.6 | 48.5 | 79.3 | 49.1 | 15.5 | 230.7 |
| 1973 | 48.2 | 9.0 | 4.6 | 54.3 | 77.1 | 53.1 | 17.3 | 245.7 |
| 1974 | 55.0 | 10.7 | 5.8 | 59.5 | 80.7 | 57.3 | 21.4 | 269.4 |
| 1975 | 63.6 | 14.1 | 6.8 | 85.1 | 87.6 | 70.2 | 23.2 | 332.2 |
| 1976 | 72.7 | 16.9 | 8.6 | 91.2 | 89.9 | 85.4 | 26.7 | 371.8 |
| 1977 | 83.7 | 20.8 | 9.9 | 89.6 | 97.5 | 99.3 | 29.9 | 409.2 |
| 1978 | 92.4 | 24.3 | 10.7 | 100.3 | 104.6 | 113.8 | 35.5 | 458.7 |
| 1979 | 102.6 | 28.2 | 12.4 | 104.1 | 116.8 | 122.9 | 42.6 | 504.0 |
| 1980 | 117.1 | 34.0 | 14.0 | 126.4 | 134.6 | 141.5 | 52.5 | 590.9 |
| 1981 | 137.9 | 41.3 | 16.8 | 143.6 | 158.0 | 149.7 | 68.8 | 678.2 |
| 1982 | 153.9 | 49.2 | 17.4 | 150.4 | 185.9 | 139.9 | 85.0 | 745.8 |
| 1983 | 168.5 | 55.5 | 19.0 | 167.7 | 209.9 | 143.3 | 89.8 | 808.4 |
| 1984 | 176.1 | 61.0 | 20.1 | 148.6 | 228.0 | 151.2 | 111.1 | 851.9 |
| 1985 | 186.4 | 69.6 | 22.7 | 169.7 | 253.1 | 162.6 | 129.5 | 946.4 |
| 1986 | 196.5 | 74.2 | 25.0 | 166.3 | 273.8 | 164.5 | 136.0 | 990.5 |
| 1987 | 205.1 | 79.9 | 27.4 | 162.0 | 282.5 | 161.4 | 138.7 | 1,004.1 |
| 1988 | 216.8 | 85.7 | 30.5 | 172.3 | 290.9 | 173.2 | 151.8 | 1,064.5 |
| 1989 | 230.4 | 94.3 | 34.6 | 190.3 | 304.0 | 184.5 | 169.3 | 1,143.7 |
| 1990 | 246.5 | 107.4 | 41.1 | 232.3 | 300.1 | 200.2 | 184.2 | 1,253.2 |
| 1991 | 266.8 | 114.2 | 52.5 | 269.1 | 319.7 | 213.3 | 194.5 | 1,324.4 |
| 1992 | 285.2 | 129.4 | 67.8 | 234.2 | 302.6 | 231.5 | 199.4 | 1,381.7 |
| 1993 | 302.0 | 143.1 | 75.8 | 215.9 | 292.4 | 248.0 | 198.8 | 1,409.4 |
| 1994 | 316.9 | 159.5 | 82.0 | 225.6 | 282.3 | 261.0 | 203.0 | 1,461.7 |
| 1995 | 333.3 | 177.1 | 89.1 | 218.7 | 273.6 | 271.5 | 232.2 | 1,515.7 |
| 1996 | 347.1 | 191.3 | 92.0 | 227.2 | 266 | 267.8 | 241.1 | 1,560.5 |
| 1997 | 362.3 | 207.9 | 95.6 | 228.8 | 271.9 | 276.7 | 244.1 | 1,600.9 |
| 1998 | 376.0 | 214.0 | 101.0 | 251.0 | 270.0 | 282.0 | 244.0 | 1,738.0 |

Source: Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1999-2008*, Tables E-8, E-10, E-12.

Note: All figures in billions of dollars.

Figure 3-9: Government Expenditures as a Percentage of GDP through 2030, Using Two Assumptions of Economic Growth

| | Projected Total Government Expenditures as a Percent of GDP (Real 1992 Dollars) | |
|------|--|--|
| | Assuming Anemic Economic Growth (1 percent) | Assuming Robust Economic Growth (3 percent) |
| 1997 | 34.1 | 34.1 |
| 1998 | 34.7 | 34.1 |
| 1999 | 35.4 | 34.0 |
| 2000 | 36.0 | 33.9 |
| 2001 | 36.6 | 33.9 |
| 2002 | 37.3 | 33.8 |
| 2003 | 38.0 | 33.8 |
| 2004 | 38.6 | 33.7 |
| 2005 | 39.3 | 33.6 |
| 2006 | 40.0 | 33.6 |
| 2007 | 40.8 | 33.5 |
| 2008 | 41.5 | 33.4 |
| 2009 | 42.2 | 33.4 |
| 2010 | 43.0 | 33.3 |
| 2011 | 43.8 | 33.3 |
| 2012 | 44.5 | 33.2 |
| 2013 | 45.3 | 33.1 |
| 2014 | 46.2 | 33.1 |
| 2015 | 47.0 | 33.0 |
| 2016 | 47.8 | 32.9 |
| 2017 | 48.7 | 32.9 |
| 2018 | 49.6 | 32.8 |
| 2019 | 50.4 | 32.8 |
| 2020 | 51.3 | 32.7 |
| 2021 | 52.3 | 32.6 |
| 2022 | 53.2 | 32.6 |
| 2023 | 54.2 | 32.5 |
| 2024 | 55.1 | 32.5 |
| 2025 | 56.1 | 32.4 |
| 2026 | 57.1 | 32.4 |
| 2027 | 58.2 | 32.3 |
| 2028 | 59.2 | 32.2 |
| 2029 | 60.3 | 32.2 |
| 2030 | 61.3 | 32.1 |

Source: National Academy on an Aging Society calculations based on CBO projections for 2030.

Figure 4-1: Median Income of Elderly Families (In 1996 Dollars)

| | Median Income |
|------|----------------------|
| 1962 | \$8,414 |
| 1967 | 8,587 |
| 1971 | 11,897 |
| 1976 | 12,960 |
| 1978 | 13,548 |
| 1980 | 13,272 |
| 1982 | 14,292 |
| 1984 | 15,358 |
| 1986 | 15,690 |
| 1988 | 16,145 |
| 1990 | 16,205 |
| 1992 | 15,611 |
| 1994 | 15,980 |
| 1996 | 16,099 |

Source: Grad, S. (May 1998). *Income of the Aged Chartbook, 1996*.

Figure 4-2: Percent of Elderly with Income Sources

| | Social Security | Asset Income | Pensions | Earnings | Public Assistance |
|------|------------------------|---------------------|-----------------|-----------------|--------------------------|
| 1962 | 69 | 54 | 18 | 36 | 14 |
| 1967 | 86 | 50 | 22 | 27 | 12 |
| 1971 | 87 | 49 | 23 | 31 | 10 |
| 1976 | 89 | 56 | 31 | 25 | 11 |
| 1978 | 90 | 62 | 32 | 25 | 10 |
| 1980 | 90 | 66 | 34 | 23 | 10 |
| 1982 | 90 | 68 | 35 | 22 | 8 |
| 1984 | 91 | 68 | 38 | 21 | 9 |
| 1986 | 91 | 67 | 40 | 20 | 7 |
| 1988 | 92 | 68 | 42 | 22 | 7 |
| 1990 | 92 | 69 | 44 | 22 | 7 |
| 1992 | 92 | 67 | 45 | 20 | 7 |
| 1994 | 91 | 67 | 42 | 21 | 6 |
| 1996 | 91 | 63 | 41 | 21 | 6 |

Source: Grad, S. (May 1998). *Income of the Aged Chartbook, 1996*.

Figure 4-3: Poverty Rate by Age

| | Less than Age 18 (Percent) | Age 18 to 64 (Percent) | Age 65 or Older (Percent) |
|------|----------------------------------|------------------------------|---------------------------------|
| 1959 | 27.3 | 17.0 | 35.2 |
| 1966 | 17.6 | 10.5 | 28.5 |
| 1967 | 16.6 | 10.0 | 29.5 |
| 1968 | 15.6 | 9.0 | 25.0 |
| 1969 | 14.0 | 8.7 | 25.3 |
| 1970 | 15.1 | 9.0 | 24.6 |
| 1971 | 15.3 | 9.3 | 21.5 |
| 1972 | 15.1 | 8.8 | 18.6 |
| 1973 | 14.4 | 8.3 | 16.3 |
| 1974 | 15.4 | 8.3 | 14.6 |
| 1975 | 17.1 | 9.2 | 15.3 |
| 1976 | 16.0 | 9.0 | 15.0 |
| 1977 | 16.2 | 8.8 | 14.1 |
| 1978 | 15.9 | 8.7 | 14.0 |
| 1979 | 16.4 | 8.9 | 15.2 |
| 1980 | 18.3 | 10.1 | 15.7 |
| 1981 | 20.0 | 11.1 | 15.3 |
| 1982 | 21.9 | 12.0 | 14.6 |
| 1983 | 22.3 | 12.4 | 13.8 |
| 1984 | 21.5 | 11.7 | 12.4 |
| 1985 | 20.7 | 11.3 | 12.6 |
| 1986 | 20.5 | 10.8 | 12.4 |
| 1987 | 20.3 | 10.6 | 12.5 |
| 1988 | 19.5 | 10.5 | 12.0 |
| 1989 | 19.6 | 10.2 | 11.4 |
| 1990 | 20.6 | 10.7 | 12.2 |
| 1991 | 21.8 | 11.4 | 12.4 |
| 1992 | 22.3 | 11.9 | 12.9 |
| 1993 | 22.7 | 12.4 | 12.2 |
| 1994 | 21.8 | 11.9 | 11.7 |
| 1995 | 20.8 | 11.4 | 10.5 |
| 1996 | 20.5 | 11.4 | 10.8 |

Figure 4-5: Disability Rates of the Elderly,
by Gender

| | Male (Percent) | Female (Percent) |
|-------|-------------------|---------------------|
| 1970 | 45.8 | 39.6 |
| 1971 | 47.2 | 41.2 |
| 1972 | 47.0 | 40.5 |
| 1973 | 46.3 | 42.6 |
| 1974 | 49.7 | 43.1 |
| 1975 | 49.9 | 44.4 |
| 1976 | 48.3 | 43.4 |
| 1977 | 47.7 | 39.7 |
| 1978 | 48.2 | 42.7 |
| 1979 | 49.1 | 43.9 |
| 1980 | 48.8 | 42.7 |
| 1981 | 49.6 | 43.1 |
| 1983* | 39.3 | 40.7 |
| 1984 | 39.0 | 39.0 |
| 1985 | 39.1 | 39.9 |
| 1986 | 37.2 | 40.0 |
| 1987 | 37.0 | 37.9 |
| 1988 | 36.3 | 37.4 |
| 1989 | 38.6 | 38.0 |
| 1990 | 35.7 | 38.8 |
| 1991 | 37.2 | 38.4 |
| 1992 | 38.4 | 39.1 |
| 1993 | 38.1 | 39.5 |
| 1994 | 38.1 | 38.2 |

Source: Kaye, H., LaPlante, M., Carlson, D., and Wenger, B., Trends in Disability Rates in the United States, 1970-1994, *Disability Statistics Abstract*, Number 17, November 1996, Figure 2.

Note: Data for 1982 are unavailable.

Source: U.S. Census Bureau, *Current Population Reports*, Appendix Tables C1 and C2, 1997.
U.S. Census Bureau, *Poverty in the United States*, P60-198, 1998.

Note: Data from 1960 through 1966 are unavailable.

Figure 4-6: Labor Force Participation Rates for Women, by Age

| | Age 25-34 | Age 35-44 | Age 45-54 | Age 55-64 | Age 65-69 |
|------|--------------|--------------|--------------|--------------|--------------|
| 1960 | 36.0 | 43.4 | 49.9 | 37.2 | 17.6 |
| 1961 | 36.4 | 43.8 | 50.1 | 37.9 | 17.8 |
| 1962 | 36.3 | 44.1 | 50.0 | 38.7 | 16.9 |
| 1963 | 37.2 | 44.9 | 50.6 | 39.7 | 16.5 |
| 1964 | 37.2 | 45.0 | 51.4 | 40.2 | 17.5 |
| 1965 | 38.5 | 46.1 | 50.9 | 41.1 | 17.4 |
| 1966 | 39.8 | 46.8 | 51.7 | 41.8 | 17.0 |
| 1967 | 41.9 | 48.1 | 51.8 | 42.4 | 17.0 |
| 1968 | 42.6 | 48.9 | 52.3 | 42.4 | 17.0 |
| 1969 | 43.7 | 49.9 | 53.8 | 43.1 | 17.3 |
| 1970 | 45.0 | 51.1 | 54.4 | 43.0 | 17.3 |
| 1971 | 45.6 | 51.6 | 54.3 | 42.9 | 17.0 |
| 1972 | 47.8 | 52.0 | 53.9 | 42.1 | 17.0 |
| 1973 | 50.4 | 53.3 | 53.7 | 41.1 | 16.0 |
| 1974 | 52.6 | 54.7 | 54.6 | 40.7 | 14.4 |
| 1975 | 54.9 | 55.8 | 54.6 | 40.9 | 14.5 |
| 1976 | 57.3 | 57.8 | 55.0 | 41.0 | 14.9 |
| 1977 | 59.7 | 59.6 | 55.8 | 40.9 | 14.5 |
| 1978 | 62.2 | 61.6 | 57.1 | 41.3 | 14.9 |
| 1979 | 63.9 | 63.6 | 58.3 | 41.7 | 15.3 |
| 1980 | 65.5 | 65.5 | 59.9 | 41.3 | 15.1 |
| 1981 | 66.7 | 66.8 | 61.1 | 41.4 | 14.9 |
| 1982 | 68.0 | 68.0 | 61.6 | 41.8 | 14.9 |
| 1983 | 69.0 | 68.7 | 61.9 | 41.5 | 14.7 |
| 1984 | 69.8 | 70.1 | 62.9 | 41.7 | 14.2 |
| 1985 | 70.9 | 71.8 | 64.4 | 42.0 | 13.5 |
| 1986 | 71.6 | 73.1 | 65.9 | 42.3 | 14.3 |
| 1987 | 72.4 | 74.5 | 67.1 | 42.7 | 14.3 |
| 1988 | 72.7 | 75.2 | 69.0 | 43.5 | 15.4 |
| 1989 | 73.5 | 76.0 | 70.5 | 45.0 | 16.4 |
| 1990 | 73.5 | 76.4 | 71.2 | 45.2 | 17.0 |
| 1991 | 73.1 | 76.5 | 72.0 | 45.2 | 17.0 |
| 1992 | 73.9 | 76.7 | 72.6 | 46.5 | 16.2 |
| 1993 | 73.4 | 76.6 | 73.5 | 47.2 | 16.1 |
| 1994 | 74.0 | 77.1 | 74.6 | 48.9 | 17.9 |
| 1995 | 74.9 | 77.2 | 74.4 | 49.2 | 17.5 |
| 1996 | 75.2 | 77.5 | 75.4 | 49.6 | 17.2 |
| 1997 | 76.0 | 77.7 | 76.0 | 50.9 | 17.6 |

Source: Quinn, J. *Retirement Patterns and Bridge Jobs in the 1990s*.

Figure 4-7: Labor Force Participation Rates for Men, by Age

| | Age 25-34 | Age 35-44 | Age 45-54 | Age 55-64 | Age 65-69 |
|------|--------------|--------------|--------------|--------------|--------------|
| 1960 | 97.5 | 97.7 | 95.7 | 86.8 | 46.8 |
| 1961 | 97.5 | 97.6 | 95.6 | 87.3 | 44.1 |
| 1962 | 97.2 | 97.6 | 95.6 | 86.2 | 42.8 |
| 1963 | 97.1 | 97.5 | 95.7 | 86.2 | 40.9 |
| 1964 | 97.3 | 97.3 | 95.7 | 85.6 | 42.6 |
| 1965 | 97.2 | 97.3 | 95.6 | 84.6 | 43.0 |
| 1966 | 97.3 | 97.2 | 95.3 | 84.5 | 42.7 |
| 1967 | 97.2 | 97.3 | 95.2 | 84.4 | 43.4 |
| 1968 | 96.9 | 97.1 | 94.9 | 84.3 | 43.0 |
| 1969 | 96.7 | 96.9 | 94.6 | 83.4 | 42.3 |
| 1970 | 96.4 | 96.9 | 94.3 | 83.0 | 41.6 |
| 1971 | 95.9 | 96.5 | 93.9 | 82.1 | 39.4 |
| 1972 | 95.7 | 96.4 | 93.2 | 80.4 | 36.9 |
| 1973 | 95.7 | 96.2 | 93.0 | 78.2 | 34.2 |
| 1974 | 95.8 | 96.0 | 92.2 | 77.3 | 32.9 |
| 1975 | 95.2 | 95.6 | 92.1 | 75.6 | 31.7 |
| 1976 | 95.2 | 95.4 | 91.6 | 74.3 | 29.3 |
| 1977 | 95.3 | 95.7 | 91.1 | 73.8 | 29.4 |
| 1978 | 95.3 | 95.7 | 91.3 | 73.3 | 30.1 |
| 1979 | 95.3 | 95.7 | 91.4 | 72.8 | 29.6 |
| 1980 | 95.2 | 95.5 | 91.2 | 72.1 | 28.5 |
| 1981 | 94.9 | 95.4 | 91.4 | 70.6 | 27.8 |
| 1982 | 94.7 | 95.3 | 91.2 | 70.2 | 26.9 |
| 1983 | 94.2 | 95.2 | 91.2 | 69.4 | 26.1 |
| 1984 | 94.4 | 95.4 | 91.2 | 68.5 | 24.6 |
| 1985 | 94.7 | 95.0 | 91.0 | 67.9 | 24.4 |
| 1986 | 94.6 | 94.8 | 91.0 | 67.3 | 25.0 |
| 1987 | 94.6 | 94.6 | 90.7 | 67.6 | 26.8 |
| 1988 | 94.3 | 94.5 | 90.9 | 67.0 | 25.8 |
| 1989 | 94.4 | 94.5 | 91.1 | 67.2 | 26.1 |
| 1990 | 94.1 | 94.3 | 90.7 | 67.8 | 26.0 |
| 1991 | 93.6 | 94.1 | 90.5 | 67.0 | 25.1 |
| 1992 | 93.8 | 93.7 | 90.7 | 67.0 | 25.9 |
| 1993 | 93.4 | 93.4 | 90.1 | 66.5 | 25.4 |
| 1994 | 92.6 | 92.8 | 89.1 | 65.5 | 26.8 |
| 1995 | 93.0 | 92.3 | 88.8 | 66.0 | 27.0 |
| 1996 | 93.2 | 92.4 | 89.1 | 67.0 | 27.5 |
| 1997 | 93.0 | 92.6 | 89.5 | 67.6 | 28.4 |

Source: Quinn, J. *Retirement Patterns and Bridge Jobs in the 1990s*.



Figure 4-14: Poverty Rates of the Elderly by Race, 1959 to 1994

| | White (Percent) | Black (Percent) | Hispanic (Percent) |
|-------------|----------------------------|----------------------------|-------------------------------|
| 1959 | 33.1 | 62.5 | |
| 1966 | 26.4 | 55.1 | |
| 1967 | 27.7 | 53.3 | |
| 1968 | 23.1 | 47.7 | |
| 1969 | 23.3 | 50.2 | |
| 1970 | 22.6 | 48.0 | |
| 1971 | 19.9 | 39.3 | |
| 1972 | 16.8 | 39.9 | |
| 1973 | 14.4 | 37.1 | 24.9 |
| 1974 | 12.8 | 34.3 | 28.9 |
| 1975 | 13.4 | 36.3 | 32.6 |
| 1976 | 13.2 | 34.8 | 27.7 |
| 1977 | 11.9 | 36.3 | 21.9 |
| 1978 | 12.1 | 33.9 | 23.2 |
| 1979 | 13.3 | 36.2 | 26.8 |
| 1980 | 13.6 | 38.1 | 30.8 |
| 1981 | 13.1 | 39.0 | 25.7 |
| 1982 | 12.4 | 38.2 | 26.6 |
| 1983 | 11.7 | 36.0 | 22.1 |
| 1984 | 10.7 | 31.7 | 21.5 |
| 1985 | 11.0 | 31.5 | 23.9 |
| 1986 | 10.7 | 31.0 | 22.5 |
| 1987 | 10.6 | 32.4 | 27.5 |
| 1988 | 10.0 | 32.2 | 22.4 |
| 1989 | 9.6 | 30.7 | 20.6 |
| 1990 | 10.1 | 33.8 | 22.5 |
| 1991 | 10.3 | 33.8 | 20.8 |
| 1992 | 11.0 | 33.5 | 22.1 |
| 1993 | 10.7 | 28 | 21.4 |
| 1994 | 10.2 | 27.4 | 22.6 |

Source: U.S. Census Bureau, *Income, Poverty, and Valuation of Noncash Benefits, 1994*, Table B-6.

Bibliography

- Aaron, H., Bosworth, B., and Burtless, G. (1989). *Can America afford to grow old?* Washington, DC: The Brookings Institution.
- Advisory Council on Social Security. (1991). *Future financial resources of the elderly: A view of pensions, savings, Social Security, and earnings in the 21st century.* Washington, DC: Social Security Administration.
- Advisory Council on Social Security. (1991). *Income security and health care: Economic implications 1991-2020.* Washington, DC: Social Security Administration.
- American Association of Retired Persons Public Policy Institute. (1998). *Boomers approaching midlife: How secure a future?* Washington, DC: AARP.
- American Association of Retired Persons Public Policy Institute & The Lewin Group. (1997). *Out-of-pocket health spending by Medicare beneficiaries age 65 and older: 1997 projections.* Pub. No. 9705. Washington, DC: AARP.
- American Council on Life Insurance. (1998). *Who will pay for the baby boomers' long-term care needs? Expanding the role of private long-term care insurance.* Washington DC: American Council on Life Insurance.
- American Health Care Association. (1998). *Today's nursing facilities and the people they serve.* Washington, DC: American Health Care Association.
- Ball, R. (January 1998). *A commentary on the current Social Security debate.* Letter to colleagues.
- Baughner, E. & Lamison-White, L. (September 1996). Poverty in the United States: 1995. *Current Population Reports: Consumer Income.* Pub. No. P60-194. Washington DC: U.S. Department of Commerce.
- Bengtson, V. & Achenbaum, W.A. (Eds.) (1993). *The changing contract across generations.* New York: Aldine De Gruyter.
- Bernheim, D. (1993). *Is the baby boom generation preparing adequately for retirement?* Princeton, NJ: Princeton University Press.
- Binstock, R. & George, L. (1990). *Handbook of aging and the social sciences.* (3rd Ed.) San Diego, CA: Press.
- Bipartisan Commission on Entitlement and Tax Reform. (1994). *Interim report to the President.* Washington, DC: U.S. Government Printing Office.
- Bipartisan Commission on Entitlement and Tax Reform. (1995). *Final report to the President.* Washington, DC: U.S. Government Printing Office.
- Blinder, A. (1997). The speed limit: Fact and fancy in the growth debate. *The American Prospect*, 34 (September/October): 57-62.
- Board of Governors of the Federal Reserve Board. (April 1997). *Flow of funds accounts.* Washington, DC: Federal Reserve Board.
- The Board of Trustees, Federal Hospital Insurance Trust Fund. (April 1997). *The 1997 annual report of the Board of Trustees of the Federal Hospital Insurance Trust Fund.* Washington, DC: U.S. Government Printing Office.
- The Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. (January 1961). *The 21st annual report of the Board of Trustees of the Federal Old-Age and Survivors Insurance Trust Fund and the Federal Disability Insurance Trust Fund.* Washington, DC: U.S. Government Printing Office.
- The Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. (1981). *The 1981 annual report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds.* Washington, DC: U.S. Government Printing Office.

-
- The Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. (April 1997). *The 1997 annual report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds*. Washington, DC: U.S. Government Printing Office.
- The Board of Trustees, Federal Supplementary Medical Insurance Trust Fund. (April 1997). *The 1997 annual report of the Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund*. Washington, DC: U.S. Government Printing Office.
- Bosworth, B., Burtless, G., & Sabelhaus, J. (1991). The decline in saving: Evidence from household surveys. *Brookings Papers on Economic Activity*, 1, 183-204.
- Bronfenbrenner, U., McClelland, P., Wethington, E., Moen, P., & Ceci, S. (1996). *The state of Americans*. New York: The Free Press.
- Caldwell, S. & Keister, L. (1996, unpublished). *Are baby boomers richer than their parents? Intergenerational patterns of wealth ownership in the United States, 1980–2020*. Ithaca, NY: Cornell University.
- Carnes, B., Olshansky, S., & Grahn, D. (1996). Continuing the search for a law of mortality. *Population and Development Review*, 22, 231-264.
- Centers for Disease Control and Prevention. (March 1998). Life Tables. *Vital statistics of the United States, 1994*. Preprint of Volume II, Mortality, Part A, Section 6. Atlanta, GA: Public Health Service.
- The Center for Vulnerable Populations. (May 1997). How is Medicaid managed care serving people with disabilities? *Spotlight*, 3(4). May 1997.
- Coleman, B. (April 1997). *New directions for state long-term care systems. Volume IV: Limiting state Medicaid spending on nursing home care*. Pub. No. 9702. Washington, DC: American Association of Retired Persons Public Policy Institute.
- Committee for Economic Development. (1995). *Who will pay for your retirement? The looming crisis*. Washington DC: U.S. Government Printing Office.
- Congressional Budget Office. (September 1993). *Baby boomers in retirement: An early perspective*. Washington DC: U.S. Government Printing Office.
- Congressional Budget Office. (September 1994). *Reducing entitlement spending*. Washington, DC: U.S. Government Printing Office.
- Congressional Budget Office. (May 1996). *Long-term budgetary pressures and policy options*. Washington, DC: U.S. Government Printing Office.
- Congressional Budget Office. (March 1997). *The economic and budget outlook: Fiscal years 1997—2006*. Washington, DC: U.S. Government Printing Office.
- Congressional Budget Office. (March 1997). *Long-term budgetary pressures and policy options*. Washington, DC: U.S. Government Printing Office.
- Congressional Budget Office. (January 1998). *The economic and budget outlook: Fiscal years 1999—2008*. Washington, DC: U.S. Government Printing Office.
- Congressional Budget Office. (May 1998). *Long-term budgetary pressures and policy options*. Washington, DC: U.S. Government Printing Office.
- Congressional Budget Office. (August 1998). *The economic and budget outlook: An update*. Washington DC: U.S. Government Printing Office.
- Council of Economic Advisors. (February 1998). *Economic report of the President*. Washington, DC: U.S. Government Printing Office.
- Dychtwald, K. & Flower, J. (1990). *Age wave*. New York: Bantam Books.
- Easterlin, R. (1994). The birth dearth, aging, and the economy: Where have we been and where are we going? In S. Asefa & W.C. Huang (Eds.), *Human capital and economic development*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

-
- Easterlin, R., Schaeffer, C., & Macunovich, D. (1993). Will the baby boomers be less well off than their parents? Income, wealth, and family circumstances over the life cycle in the United States. *Population and Development Review*, 19, 497-522.
- Eisner, R. (1997). *The great deficit scares: The federal budget, trade, and Social Security*. New York: The Century Foundation Press.
- Eller, T.J. (January 1994). Household wealth and asset ownership: 1991. In *Current Population Reports: Household Economic Studies*. Pub. No. P70-34. Washington, DC: U.S. Department of Commerce.
- Eller, T. & Fraser, W. (1993). Asset ownership of households: 1993. In *Current Population Reports: Household Economic Studies*. Pub. No. P70-47. Washington, DC: U.S. Department of Commerce.
- Feder, J., Lambrew, J., & Huckaby, M. (December 1996). *Medicaid and long-term care for the elderly: Implications of restructuring*. New York, NY: The Commonwealth Fund.
- Friedland, R. (1990). *Facing the costs of long-term care*. Washington, DC: Employee Benefit Research Institute.
- Friedland, R. (October 1998). Life expectancy in the future: A summary of a discussion among experts. *North American Actuarial Journal*, 2(4): 1-14.
- Friedland, R., Etheridge, L., & Vladeck, B. (Eds.). (1994). *Social welfare policy at the crossroads: Rethinking the roles of social insurance*. Washington, DC: National Academy of Social Insurance.
- Fuchs, V. (1986). *The health economy*. Cambridge, MA: Harvard University Press.
- Grad, S. (January 1996). *Income of the population 55 or older, 1994*. Washington DC: Social Security Administration.
- Grad, S. (May 1998). *Income of the aged chartbook, 1996*. Washington, DC: Social Security Administration.
- Grad, S. (May 1998). *Income of the population 55 or older, 1996*. Washington, DC: Social Security Administration.
- Hadley, J. (1998). *Analysis of Preliminary Tables from the 1969 and 1994 Health Interview Surveys*. Washington, DC: Institute for Health Care Research and Policy, Georgetown University.
- Hanushek, E. & Maritato, N. (Eds.). (1996). *Assessing knowledge of retirement behavior*. Washington DC: National Academy Press.
- Harper, M. (Ed.). (1990). Minority aging. *Health Resources and Services Administration*, Pub. No. HRS(P-DV-90-4). Washington, DC: US Government Printing Office.
- Health Care Financing Administration. (Fall 1996). *Health Care Financing Review*. 18(1).
- Health Care Financing Administration. (1996). *Health Care Financing Review: Statistical Supplement*.
- Health Care Financing Administration. (1996). *Profiles of Medicare*. Washington, DC: Department of Health and Human Services.
- Health Care Financing Administration. (Summer 1997). *Health Care Financing Review*, 18(4).
- Health Care Financing Administration. (May 1998). *A profile of Medicare chartbook*. Washington, DC: Department of Health and Human Services.
- Health Insurance Association of America. (1997). *Guide to long-term care insurance*. Washington DC: Health Insurance Association of America.
- Hercik, J. (1997). *Transitions: States prepare for the aging of America*. Paper presented at meeting of the National Governors' Association, Washington DC: National Governors' Association.
- Hobbs, F. & Damon, B. (April 1996). 65+ in the United States. In *Current Population Reports Special Studies*, Pub. No. P23-190. Washington, DC: U.S. Department of Commerce and Department of Health and Human Services.
- Holden, K. (1996). Social Security and the economic security of women: Is it fair? In Eric Kingson & James H. Schulz, (Eds.), *Social Security in the 21st century*. New York: Oxford University Press.

-
- Hoynes, H., & Mcfadden, D. (1994). *The impact of demographics on housing and nonhousing wealth in the United States*. Cambridge, MA: National Bureau of Economic Research. Working Paper No. 4666.
- Hurd, M. (1989). The economic status of the elderly. *Science*, 224, 659-664.
- Hurd, M. (1990). Research on the elderly: Economic status, retirement, and consumption and saving. *Journal of Economic Literature*, 28, 565-637.
- The Institute for Health & Aging, University of California at San Francisco. (August 1996). *Chronic care in America: A 21st century challenge*. Princeton, NJ.
- Jenkins, R. (April 1996). Assisted living and private rooms: What people say they want. *AARP Data Digest*, No. 26.
- Judy, R. & D'Amico, C. (1997). *Workforce 2020: Work and workers in the 21st century*. Indianapolis, IN: Hudson Institute.
- The Kaiser Medicare Policy Project. (April 1997). *The Medicare program: Medicare at a glance*. Washington DC: Kaiser Permanente.
- Kemper, P. & Murtaugh, C. (1991). *Lifetime use of nursing home care*. The New England Journal of Medicine.
- Kenney, G. & Moon, M. (1997). *Reining in the growth in home health services under medicare*. Washington, DC: The Urban Institute Press.
- Kingson, E. (1992). *The diversity of the baby boom generation: Implications for their retirement years*. Washington, DC: AARP.
- Kingson, E. & Schulz, J. (Eds.). (1996). *Social Security in the 21st century*. New York: Oxford University Press.
- Komisar, H., Lambrew, J., & Feder, J. (1996). *Long-term care for the elderly chart book*. Washington, DC: Institute for Health Care Research and Policy, Georgetown University.
- Kotlikoff, L., & Auerbach, A. (1994). U.S. fiscal savings crises and their impact for baby boomers. In Dallas Salisbury & Nora Super Jones (Eds.), *Retirement in the 21st century...ready or not*. Washington, DC: Employee Benefit Research Institute.
- Lamm, R. & Lamm, H. (1996). The challenge of an aging society, *Public Policy and Aging Report*, 7(4), 1-19.
- Leone, R. (1996). America can afford to grow old. *Public Policy and Aging Report*, 7(4), 1-16.
- Manchester, J. (1994). Baby boomers in retirement: An early perspective. In D. Salisbury & N. Jones (Eds.), *Retirement in the 21st century...ready or not*. Washington, DC: Employee Benefit Research Institute.
- Manton, K., Corder, L., & Stallard, E. (1997). Chronic disability trends in elderly in the United States. *The National Academy of Sciences of the USA*, 94, 2593-2598.
- Marmor, T., Mashaw, J., & Harvey, P. (1990). *America's misunderstood welfare state: Persistent myths, enduring realities*. New York: Basic Books.
- Marmor, T., Smeeding, T., & Greene, V. (1994). *Economic security and intergenerational justice*. Washington, DC: The Urban Institute Press.
- Martin, L. & Preston, S. (Eds.). (1994). *Demography of aging*. National Research Council. Washington, DC: National Research Council.
- Martin, L. & Soldo, B. (Eds.). (1997). *Racial and ethnic differences in the health of older Americans*. Washington, DC: National Research Council.
- May, R. (March 1995). *1993 poverty and income trends*. Washington DC: Center on Budget and Policy Priorities.
- McGarry, K. & Schoeni, R. (1997). *Transfer behavior within the family: Results from the asset and health dynamic study*. *Journal of Gerontology*, 52(B).
- McGarry, K. and Schoeni, R. (1995). *Transfer behavior in the health and retirement Study*. *Journal of Human Resources*: 30.
- McGarry, K. and Schoeni, R. (1998). *Social Security, economic growth, and the rise in independence of elderly widows in the 20th century*. Presented at Syracuse University, September 1998.

-
- Merrill Lynch & Co. (1994). *Savings and the American dream: An economic and public opinion study*. New York.
- Meyers, G. (Ed.). (May 1997). Asset and health dynamics among the oldest old (AHEAD): Initial results from the Longitudinal Study. *The Journals of Gerontology Series B: Psychological and Social Sciences*, Special Issue, 52B.
- Milne, D., VanDerhei, J. & Yakoboski, P. (1995). *Can we save enough to retire? Participant education in defined contribution plans*. EBRI Issue Brief No. 160. Washington, DC: Employee Benefit Research Institute.
- Moon, M. & Mulvey, J. (1996). *Entitlements and the elderly: Protecting promises, recognizing realities*. Washington, DC: The Urban Institute Press.
- Moon, M. *Medicare now and in the future*. (1996). Washington, DC: The Urban Institute Press.
- National Academy of Social Insurance. (January 1998). Framing the Social Security debate: Values, politics, and economics. In *Compendium of the 10th Annual Conference and Membership Meeting*. Washington, DC: National Academy of Social Insurance.
- National Academy on an Aging Society. (September 1997). *Facts on long-term care*. Washington, DC: National Academy on an Aging Society.
- National Alliance for Caregiving and the American Association of Retired Persons. (1997). *Family caregiving in the U.S.* Washington, DC: National Alliance for Caregiving and the American Association of Retired Persons.
- National Association for Home Care. (1997). *Basic statistics about home care 1997*. Washington, DC: National Association for Home Care.
- National Center for Health Statistics. (1998). *Health, United States, 1998*. Hyattsville, MD: Public Health Service.
- National Center for Health Statistics. (June 1997). Health statistics on older persons: United States, 1986. *Vital and Health Statistics*, Series 3, No. 25. DHHS Pub. No. (PHS) 87-1409. Hyattsville, MD: Public Health Service.
- National Center for Health Statistics. (June 1997). *Monthly Vital Statistics Report*, 45, 11(S).
- National Center for Health Statistics. (September 1997). *Monthly Vital Statistics Report*, 46, 1(S)2.
- National Center for Health Statistics. (October 1998). Births and deaths: Preliminary data for 1997. *National Vital Statistics Report*, 47(4).
- National Commission on Retirement Policy. (January 1998). *Can America afford to retire? The retirement security challenge facing you and the nation*. Washington, DC: Center for Strategic and International Studies.
- Peterson, P. (1996). *Will America grow up before it grows old?* New York: Random House.
- Pifer, A. & Bronte, L. (1986). *Our aging society: Paradox and promise*. New York: W.W. Norton.
- Population Reference Bureau. (May 1989). *America in the 21st Century: A demographic overview*. Washington, DC: Population Reference Bureau.
- Posner, R. (1995). *Aging and old age*. Chicago: The University of Chicago Press.
- Public Trustees for the Social Security and Medicare Trust Funds. (October 1993). *Proceedings of the Conference on Future Income and Health Care Needs and Resources for the Aged*. Washington, DC: U.S. Government Printing Office.
- Public Trustees for the Social Security and Medicare Trust Funds. (October 1998). *Proceedings from the Conference on Future Income and Health Care Needs and Resources for the Aged*. Washington DC: U.S. Government Printing Office.
- Quadagno, J. (1996). Social Security and the myth of the entitlement crisis. *The Gerontologist*. 36(3), 391-400.
- Quadagno, J. & Quinn, J. (1996.) Does Social Security discourage work? In Kingson, Eric & Schulz, James H. (Ed)., *Social Security in the 21st century*. New York: Oxford University Press.
- Quinn, J. (May 1996). *Entitlements and the federal budget: Securing our future*. Washington, DC: National Academy on an Aging Society.

-
- Quinn, J. (in press). *Retirement patterns and bridge jobs in the 1990s*. Washington, DC: Employee Benefit Research Institute.
- Quinn, J. (1997). *Retirement trends and patterns in the 1990s: The end of an era?* Public Policy and Aging Report, 8(3), 10-14.
- Quinn, J. & Burkhauser, R. (1994). Retirement and labor force behavior of the elderly. In Samuel H. Preston & L.G. Martin, (Eds.), *Demography of aging*. Washington, DC: National Academy Press.
- Quinn, J. & Smeeding, T. (1994). The present and future well-being of the aged. In Burkhauser, Richard V. & Salisbury, Dallas L. (Eds.), *Pensions in a Changing Economy*, Washington, DC: Employee Benefit Research Institute.
- Rappaport, A. & Schieber, S. (1993). *Demography and retirement*. New York: Praeger Press.
- Rivlin, A. & Wiener, J. (1998). *Caring for the disabled elderly—Who will pay?* Washington, DC: The Brookings Institution.
- Ruhm, C. (1995). Secular changes in the work and retirement patterns of older men. *Journal of Human Resources*, 30, 362-385.
- Salisbury, D. (Ed.). (1997). *Assessing Social Security reform alternatives*. Washington, DC: Employee Benefit Research Institute.
- Salisbury, D. & Jones, N. (Eds.). (1994). *Retirement in the 21st century: Ready or not...* Washington, DC: Employee Benefit Research Institute.
- Schoeni, R. & McGarry, K. (1995). *Transfer behavior in the health and retirement study*. *Journal of Human Resources*, 30.
- Schulz, J. (1995). *The economics of aging, (6th Ed.)*. Westport, CT: Auburn House.
- Smith, J. (1997). *The changing economic circumstances of the elderly: Income, wealth, and Social Security*. Policy Brief No. 8. Syracuse, NY: Center for Policy Research.
- Smith, J. (1995). *Racial and ethnic differences in wealth in the retirement survey*. *Journal of Human Resources*, 30.
- Soldo, B. & Agree, E. (September 1998). America's elderly. *Population Bulletin*, 43(3).
- Steuerle, C. & Bakija, J. (1994). *Retooling Social Security for the 21st century: Right and wrong approaches*. Washington, DC: Urban Institute Press.
- Sturiale, J. (March 1997). *Poverty and income trends: 1995*. Washington DC: Center on Budget and Policy Priorities.
- Tanaka, S. (July 1997). *Building a better future: The Graying of America Project: Part I*. Washington, DC: The Committee for a Responsible Federal Budget.
- Treas, J. (1995). Older Americans in the 1990s and beyond. *Population Bulletin*, 5(2).
- Turner, J. & Beller, D. (Eds.). (1989). *Trends in pensions*. Washington, DC: U.S. Department of Labor, Pension and Welfare Benefits Administration.
- U.S. Bureau of Economic Analysis. (August 1997). *Survey of current business*. Washington DC: U.S. Government Printing Office.
- U.S. Bureau of Economic Analysis. (October 1998). *National income product accounts*. Washington DC: U.S. Government Printing Office.
- U.S. Bureau of Labor Statistics. (1962-1997). *Monthly labor review and handbook of labor statistics*.
- U.S. Census Bureau. (September 1975). *Historical statistics of the United States: Colonial times to 1970*. 93rd Congress, 1st Session. House Document No. 93-78 (Part 1).
- U.S. Census Bureau. (September 1984). Demographic and socioeconomic aspects of aging in the United States. *Current population reports*, Pub. No. P23-128.
- U.S. Census Bureau. (March 1984). Population-special subjects, *Current population reports*, Pub. No. P20-484.
- U.S. Census Bureau. (1993). Survey of Income and Program Participation. *Asset ownership of households: 1993*. Washington DC: U.S. Government Printing Office.

-
- U.S. Census Bureau. (January 1994). Household wealth and asset ownership: 1991. *Current population reports*, Pub. No. P70-34.
- U.S. Census Bureau. (February 1996). Population projections of the United States by age, sex, race, and Hispanic origin: 1995 to 2050. *Current population reports*, Pub. No. P25-1130.
- U.S. Census Bureau. (April 1996). Income, poverty, and valuation of non-cash benefits: 1994. *Current population reports*, Pub. No. P60-189.
- U.S. Census Bureau. (April 1996). 65+ in the United States. *Current population reports: Special studies*, Pub. No. P23-190.
- U.S. Census Bureau. (September 1996). Money income in the United States: 1995. *Current population reports: Consumer income*, Pub. No. P60-193.
- U.S. Census Bureau. (September 1997). Poverty in the United States: 1997. *Current population reports: Consumer income*, Pub. No. P60-198.
- U.S. Census Bureau. (1997). *Statistical abstract of the United States: 1997* (117th Ed.). Washington, DC: U.S. Government Printing Office.
- U.S. Census Bureau. (March 1998). Household and family characteristics. *Current population reports*, Pub. No. P20-515.
- U.S. Census Bureau. (September 1998). Poverty in the United States: 1996. *Current population reports: Consumer income*, Pub. No. P60-201.
- U.S. Department of Health and Human Services. (1998). *The Surgeon General's report on nutrition and health*. Washington, DC: Public Health Service.
- U.S. Department of Health and Human Services. (February 1995). *Research notes*. Washington, DC: Public Health Service.
- U.S. General Accounting Office. (June 1992). Budget policy: Prompt action necessary to avert long-term damage to the economy. In *Report to Congressional Requestors*. GAO/OCG-92-2. Washington, DC: U.S. Government Printing Office.
- U.S. General Accounting Office. (March 1998). Long-term care: Baby boom generation presents financial challenges. *Testimony before the special committee on aging*. Table 1, p. 3. Washington, DC: U.S. Government Printing Office.
- U.S. Senate Special Committee on Aging, the American Association of Retired Persons, the Federal Council on the Aging, and the U.S. Administration on Aging. (1991). *Aging America: Trends and projections*. DHHS Pub. No. (FCoA) 91-28001. Washington, DC: U.S. Government Printing Office.
- Wattenberg, B. (1995). *Values matter most*. New York: Free Press.
- Wiener, J., Clauser, S. & Kennell, D. (Eds.). (1995). *Persons with disabilities*. Washington, DC: The Brookings Institution.
- Wiener, J., Illston, L., & Hanley, R. (1994). *Sharing the burden: Strategies for public and private long-term care insurance*. Washington, DC: The Brookings Institution.
- Wise, D (Ed.). (1990). *Issues in the economics of aging*. Chicago, IL: The University of Chicago Press.
- World Bank. (1994). *Averting the old age crisis: Policies to protect the old and promote growth*, NY: Oxford University Press.
- Zedlewski, S., Barnes, R., Burt, M., McBride, T., and Meyer, J. (1990). *Needs of the elderly in the 21st century*. Washington, DC: The Urban Institute Press.
- Zedlewski, S. & McBride, T. (1992). The changing profile of the elderly: Effects on future long-term care needs and financing. *The Milbank Quarterly*, 70(2): 247-275.



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