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ISSUES AND RESULTS FROM RESEARCH ON THE ELDERLY I:
ECONOMIC STATUS
(PART I OF III)

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ABSTRACT

This is the first part of a three-part paper on research on the elderly. The objective of the paper is to present issues and research results in three areas: economic status, retirement, and consumption and saving. This part covers background material on demographic change, living arrangements, income growth and labor force participation, and research on economic status.

The major areas of research on economic status are: adjustments to observed income to bring it closer to a welfare measure with the objective of understanding whether the elderly are better off than the nonelderly; the distribution of income among the elderly and in particular the extent and causes of the high poverty level of elderly widows; wealth holdings, especially sources of wealth and the importance of public programs.

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1. Introduction

Research by economists on the elderly has grown rapidly since the 1978 review on the economics of aging in this Journal (Robert Clark, Juanita Kreps and Joseph Spengler, 1978). An important reason for this growth is demographic change. In 1900 just 4% of the population was elderly (65 or older). By 1980 the elderly were 11% of the population and they are projected to rise to 22% in 2040. Although each age group has its own productive capacities and demands, the capacities and demands of the elderly are very different from the rest of the population, so the large demographic changes will have a substantial impact on society. For example, because few elderly work, their consumption must be financed either through their own savings or through social programs. The demographic changes are bound to put stress on capital markets and social institutions. Each age group faces uncertainty, but the consequences of uncertainty for the elderly are probably larger than for other age groups simply because they have fewer remaining years over which to spread windfall gains or losses. Furthermore, they have fewer responses to unexpected events. For example, many retired elderly cannot return to the work force in response to an unanticipated drop in income.

A second reason for the increase in research on the elderly has been the availability of data that can be used to study and test some basic economic models. Retirement is an aspect of labor supply. The Social Security system and pensions offer economic incentives that are different from the labor market incentives offered earlier in life. The response of workers of retirement age can provide information about the tradeoff between goods and leisure which can complement knowledge gained from studying the labor supply of younger workers.

The study of the consumption behavior of workers has been difficult because their main asset, human capital, is not observed. The main assets of the

retired elderly (financial assets, housing and claims on retirement programs), however, are observed. Study is further simplified because the utility of retired individuals only depends on consumption, whereas the utility of workers depends on consumption and leisure. Therefore, only the intertemporal aspects of utility maximization need to be considered, not the intratemporal aspects. In life cycle models, consumption depends on the interest rate and on mortality rates, as well as on assets. But variation in interest rates across individuals is typically not observed, and, among younger people, variation in mortality rates from person to person is so small that any effect is absorbed in the constant parameters of a consumption model. The mortality rates of the elderly are substantial, and they vary considerably by age and by sex. The variation can econometrically identify important utility function parameters.

The demographic changes and the research questions would have attracted much less attention, however, had it not been for the Retirement History Survey (RHS). THE RHS is a ten-year longitudinal survey of 11,153 households whose heads who were 58-63 in 1969. Every two years the heads (or their spouses if the head had died) were questioned about income, assets, employment, health, and social and family interactions. Most importantly, the official Social Security earnings records were attached to the survey data. From them, each person's Social Security eligibility and benefits can be calculated exactly. In principle, this provides the necessary data to estimate the effects of Social Security on retirement. The earnings records can also be used to form a good estimate of lifetime earnings, which is almost necessary in any study of lifetime wealth accumulation. The RHS has proven to be an invaluable resource: many results to be discussed in this paper are derived from the RHS data.

The main goal of this paper is to present and analyze some major research questions and findings. The research falls in three main areas: economic status of the elderly, retirement, and consumption and saving behavior. Health,

which is properly the subject of an entire paper, and social and family relationships are only mentioned in connection with the topics covered.

Because the analysis will often refer to recent economic and demographic changes, the next section will use widely available data on population, life expectancy, living arrangements, labor force participation, and income to provide background for the discussion of the research.

2. Demographic and Economic Changes.

Between 1900 and 1980 the proportion of the population that was elderly increased from 4% to 11% (Table 1). The proportion 85 and over increased from a fraction of a percent to 1%, which is about 2 million people. Population forecasts, which should be quite accurate over the next 30 years, show large increases in the fraction of the population that is old. By 2050, 6% (16 million people) of the population will be 85 or over; about eight million people will be 90 or over. Thus between 1980 and 2050 the number aged 85 and over is expected to increase by a factor of eight.

Part of the change in the age distribution is due to a long-term fall in birth rates, which, by itself, would have gradually increased the average age. Part of the large projected increase in the elderly is due to the baby-boom cohort (1946 to 1964). The fattest part of this bulge in the population will be 65 in 2020 and 95 in 2050. Mortality rates have fallen sharply, contributing to the change in age distribution: in 1900 life expectancy at birth of males and females was 46 and 49 years respectively; in 1980 it was 70 and 78.

Life expectancy, conditional on reaching 65, is forecast to continue to increase (Table 2). If there is no change in the average retirement age, the fraction of life spent in retirement will increase. Financing more consumption from a shorter worklife will strain the savings of each retired person. The

problem for society is greater because the probability that an individual will reach 65 will continue to increase and the number of individuals in the cohorts approaching 65 will rise. Therefore, the fraction of output consumed by the retired will increase substantially. This will affect not only Social Security and private pensions but capital markets as the retired convert their savings into consumption.

At the turn of the century, the conditional life expectancies of men and women were practically the same. By 1980 a 65 year-old woman could expect to live 4.2 years more than a 65 year-old man. The difference is forecast to continue to increase slowly. Beyond the more obvious impacts on Social Security and pensions, the differences in life expectancy mean that most of the very old are widows. Because the very old must finance a long lifetime of consumption, it is likely that they will have few assets toward the end of their lives. Therefore, in the absence of social programs, the longer lifetimes of women will lead to high rates of poverty among widows. As will be discussed below, elderly widows have substantially higher poverty rates than others; the population forecasts give no suggestion that demographic changes by themselves will reduce the rates.

Higher mortality rates of men affect the living arrangements of the elderly. In 1985, 53% of the elderly lived with a spouse, but the distribution was very different for men and women: 75% of elderly men lived with their wives while only 38% of elderly women lived with their husbands (Table 3).¹ Differences in living arrangements by age were much smaller among men than among women because most wives outlive their husbands. For example, 49% of women aged 65-74 lived with their spouses compared with 23% of women aged 75+. Most of the women not living with spouses would be widows. Of that group about two-thirds lived alone. Comparisons over time show a small increase in the fraction of elderly men living with a spouse (probably due to the increase in the life

expectancy of women), and a modest increase in the fraction living alone. Among women the changes were much greater: 24% lived alone 1960, 41% in 1985. The fraction living with relatives fell from 34% to 18%. The largest changes were among women 75 and over: during the 25 years the fraction living alone almost doubled from 26% to 50%; the fraction living with relatives fell from 46% to 25%. The trend from living with relatives to living alone was due, at least partly, to rising economic resources (Robert Michael, Victor Fuchs and Sharon Scott, 1980; Karen Holden, 1986; Saul Schwartz, Sheldon Danziger and Eugene Smolensky, 1984). If incomes are stable in the future, a continuing increase in the difference in life expectancies, as forecast in Table 3, implies that about half of elderly women will live alone.

The average real income of the elderly, as conventionally measured in the Current Population Survey, increased by about 29% between 1970 and 1986 (Table 4), with more than half of the increase coming between 1970 and 1975. The mean income of the entire population increased by only 8.5%, so that the income of the the elderly relative to the entire population rose from 0.54 to 0.64. As will be discussed below, this income measure is far from what economists would call a full income measure, and it makes no provision for differences in household size. Nonetheless, the figures give a good indication of the relative income gain of the elderly.

The income growth of the elderly was accompanied by rather large changes in the source of income as shown in Table 5. Income from earnings fell from 29% of total income in 1967 to 17% in 1986. The fraction of income from Social Security and pensions increased from 49% to 54%, mostly due to increases in Social Security. Income from assets increased substantially but, as to be discussed below, assets are so highly concentrated that the change was not important for many of the elderly

Table 6 gives the distribution of elderly households according to the

fraction of each household's income from various sources. For example, in 1971, 69% of elderly households had no earnings, 16% had from 1% to 49% of their income from earnings, and 15% had 50% to 100% of their income from earnings. The table shows that by 1986, 81% of elderly households had no income from earnings, and that just 8% had more than half of their income from earnings.^{@2}

The percentage of households having no income from Social Security dropped from 13% in 1971 to 8% in 1986. This change is partly due to increasing coverage of Social Security. It is also due to earlier retirement: under the Social Security law, few full-time workers would receive Social Security benefits, so as participation rates fell, the fraction receiving Social Security benefits rose. The importance of Social Security to most elderly can hardly be overstated: in 1986 57% had more than half of their income from Social Security, and 24% had more than 90%.

Although the fraction of the elderly with income from public and private pensions and annuities (almost all pensions) has increased, pensions are still a modest source of income. In 1986, only 26% had private pension income; about 13% had government pensions. These figures imply that, at most, 39% of households had some pension income. Even among those with pension income, few households had a large fraction of their income from pensions: just 7% of households had more than 50% of their income from either private or public pensions. Again, 57% of households had more than half of their income from Social Security.

Table 6 confirms that asset income (which does not include any imputed income to housing equity) has become more important; yet, in 1986 40% of households had no income from assets, and 70% of households had less than 20% of their income from assets. These figures accord with findings to be reported later that many households retire with practically no financial savings. Although asset income was 26% of total income (Table 5), most households had

small amounts from assets, reflecting the highly skewed distribution of wealth.

The decrease in the importance of earnings is reflected in changes in labor force participation, which for the elderly, is practically synonymous with retirement. The changes in participation are large: between 1950 and 1987 the participation rate of elderly men fell from 46% to 16%. In comparison, the participation rate of the population increase from 60% to 66%, due to increased participation by women. The fall in participation has been greatest at the most advanced ages, but even at younger ages it has been substantial (Table 7). For example, the participation rate of men 55-59 fell between 1957 and 1987 from 91.4% to 79.7%.

The normal retirement age of men, which at one time was 65 or even older, is now less than 65. Many men retire in their late 50's. Among women two opposite trends, earlier retirement and higher lifetime participation rates, have kept the participation rates of 60-64 and 65-69 years olds approximately constant. A way to isolate the trend to earlier retirement is to calculate the retirement hazard rate, which is the probability of retirement at age T given labor force participation at age T-1. A rough calculation of the retirement hazard rate can be made from the participation rates of Table 7 by assuming that the cross-section participation probabilities are the same as the participation probabilities as an individual ages.

Retirement Hazard Rates

<u>Year</u>	<u>Men</u>		<u>Women</u>	
	55-59 to <u>60-64</u>	60-64 to <u>65-69</u>	55-59 to <u>60-64</u>	60-64 to <u>65-69</u>
1957	.093	.366	.207	.422
1987	.311	.530	.364	.569

Source: Author's calculations based on Table 7

According to this method of calculation, in 1957 the probability of retiring at ages 60-64 given labor force participation at ages 55-59 was 0.093 for men and 0.207 for women. Thus, even among the small number of women who were in the labor force later in life the retirement probabilities were higher than the retirement probabilities of men. The retirement hazards of men increased more so that by 1987 the hazards of men and women were about the same.

The data discussed in this section show large changes in the demographic structure of the population, and in the income, labor force participation, and living arrangements of the elderly. Some of the research to be reviewed in the rest of the paper will aim at understanding the consequences of these changes, and some will aim at learning the causes of the changes.

3. Economic Status

The broad goals of the research on economic status have been to find better measures of economic well-being than simple income statistics, and to use the measures to determine whether the economic status of the elderly has improved over time, whether it has improved faster than the economic status of the nonelderly, and whether it is higher than the economic status of the nonelderly. The ultimate social usefulness of the work is to assess whether the system of transfers from the nonelderly to the elderly is adequate. Broadly speaking, the work has immediate policy implications. For example, it could be used to help decide how much of the rising Medicare and Medicaid costs should be borne by the elderly and how much by the nonelderly.

Some of the research is concerned with measurement: how to impute income flows from nonmoney sources such as housing, and Medicare and Medicaid, and how

to adjust for taxes and underreporting of income. Other research aims to find welfare measures from income: how to adjust for family size and composition to account for need. Considerable work has been aimed at distributional aspects of income, in particular, at poverty. Some work has been done on wealth measures of well being, but limitations of data and comparability with the nonelderly limit its application.³

3.1 Trends in Income

No single study has an income series with all the household size adjustments and adjustments to income that are desired. Therefore, I first give results that are based on the consistent application of one particular size adjustment. The similarity of method over years should increase our confidence in the observed trends. Then, I give results for a single year that incorporate all the adjustments. Provided there is stability of the effects of the adjustments, the two approaches taken together should give a good idea of the fully adjusted trends.

Table 8 shows annual growth rates in income and the level of income in 1984 adjusted for household size according to the official poverty index.⁴ In this scaling, one nonelderly person has a weight of 1.024, two nonelderly persons 1.322, three persons (either elderly or nonelderly) 1.568 and so forth.⁵ Elderly persons are given slightly smaller weights (about 8% smaller than the nonelderly). Size-adjusted income (income per equivalent person) is household income divided by the household weight. The scaling embodies the assumption of substantial returns to scale in household consumption: a two-person nonelderly household requires only 29% more income than a one-person household. This scaling yields income measures that are closer to income per household than to income per person: income per household has an implicit weight of 1.0 for all

households whereas income per person is based on assigning a weight of 1.0 to each person.

The average elderly family unit is smaller than the average nonelderly family unit (1.7 persons per household versus 3.0 persons in 1980), so the size adjustments will raise the income measure of the elderly relative to the nonelderly. In Table 8 the ratio of incomes of the nonelderly to the elderly was 0.67 in 1984 with no size adjustment; the ratio was 0.87 with the size adjustment. Average family size has decreased over time, but it has decreased more for the nonelderly than for the elderly. Therefore, the size adjustment will produce a larger increase in income per equivalent person of the nonelderly than of the elderly. For example, the size adjustment increased the annual rate of growth of income between 1979 and 1984 by 0.9% for the nonelderly but by just 0.3% for the elderly.

By either the unadjusted or adjusted income measure the elderly had much higher rates of growth of income than the nonelderly. These differences cumulate over a number of years to give quite different income changes. For example the total income changes from 1967 to 1984 are

	<u>No size adjustment</u>	<u>Size adjustment</u>
Nonelderly	10.7%	26.7%
Elderly	42.4%	54.7%

Source: Table 8

The growth of income of the nonelderly has come from increased work effort,⁶ whereas earnings of the elderly have fallen as their labor force participation rates declined.

Table 8 shows that, after adjusting for size, in most cases income growth

increased with age. This is partly due to the aging of younger, more wealthy cohorts and partly due to increases in Social Security, which are relatively more important to the very old. Still, as measured in Table 8, by 1984 the incomes of the most elderly were still lower than the incomes of any age group.

Table 9 indicates that incomes of the elderly increased throughout the income distribution.⁷ In the second decile their incomes grew rapidly during the first time period, possibly due to large across-the-board increases in Social Security benefits. They continued to grow in the second time period, although at a slower rate. Total growth over both periods was about 84%. The nonelderly in the second decile had much less growth during the first period, and their incomes fell substantially during the second period. The difference in the experience of the nonelderly and the elderly is clearly shown by the sharp break in growth rates at ages 60-64. Total income growth of the nonelderly over both periods was very close to zero.

The elderly in the ninth decile had consistent income growth, but overall (1967-1984) it was less than the elderly in the second decile: 49% compared with 84%. The nonelderly in the ninth percentile also had income growth over both periods, and, although there were some differences in each period, total growth was not much different from the income growth of the elderly in the ninth decile. It was much different, however, from the income growth of the nonelderly in the second decile.

The general impression from the table is that the poorer elderly have done much better than the poorer nonelderly, especially between 1979 and 1984. Incomes of the well-to-do elderly have increased sharply in recent years, probably due to the increase in asset income noted in Tables 5 and 6. Between 1969 and 1984 income inequality among the nonelderly seems to have increased, particularly from 1979 to 1984. From 1969 to 1984 income inequality among the elderly probably decreased, but not from 1979 to 1984.

The income growth in Tables 8 and 9 include cohort effects: changes within an age group are not those of any individual or group. The following table roughly eliminates cohort effects by giving the income (1982\$) of the cohort born in 1898-1903.

<u>Year and Age</u>	<u>Mean Income</u>	<u>Median Income</u>
1967; 65-69	11,095	7,810
1979; 75-79	10,847	7,807
1984; 80-84	11,469	7,843

Source: Radner, 1986.

In 1967, when this cohort was 65-69 years old, its mean real income was \$11,095; in 1979, when it was 75-79 years old, its mean real income was \$10,847. Some may find the stability of income surprising in view of the high rates of inflation during the 1970's. At one time it was generally thought that the elderly live on fixed incomes and are vulnerable to inflation; but these figures suggest the income of the elderly is effectively indexed.

The stability between 1967 and 1979 is not a reliable indicator of income indexing because of two countervailing changes: earnings would have dropped because of the trend toward earlier retirement; Social Security benefits would have increased due to changes in the benefit schedule in the early part of the 1970's. However, the stability between 1979 and 1984, when the CPI increased by 43%, certainly indicates effective indexing.⁸ Just why income should be effectively indexed is not apparent from the distribution of income by source shown in Table 5. At least part of pension income and part of asset income are not indexed, so that total income is not completely indexed. Detailed study of income in the RHS, however, confirms that incomes of individuals were stable

during the 1970s, a period of high and variable inflation (Burkhauser, Holden and Feaster, 1988). Apparently the unindexed parts of income were small and concentrated among a few individuals.

A different method of finding inflation vulnerability is based on how the value of assets (including the present value of income flows such as Social Security) is expected to change when inflation changes (Hurd and Shoven, 1985). For example, long-term nominal bonds are vulnerable to changes in the inflation rate whereas housing wealth is not. According to this measure of inflation vulnerability, very few of the elderly would be affected substantially by a change in inflation. This implies that the real value of the income flows from the assets will not change with changes in inflation, which is consistent with the effective indexing of income in the table.

3.2. Income comparisons.

The aim of the research on income comparisons is to understand better the economic status of the elderly compared with the nonelderly. Its method is to bring income measures closer to welfare measures by adjusting income for nonmoney components, underreporting and taxes, and by scaling for family size.

Table 10 shows the ratio of average income of the elderly to the nonelderly for several different income measures and for several size adjustments. Conventional income is the usual income measure from the Current Population Surveys; according to conventional income elderly households had just 52% of the income of nonelderly households in 1971. Line B shows income adjusted for the value of in-kind transfers, implicit income from housing, employment-related benefits and direct taxes. These changes are important. In-kind transfers increased the incomes of the elderly by \$1430 per household, \$1344 of which is the market value of the transfers they receive on average through the Medicare

and Medicaid programs. The elderly have lower tax rates than the nonelderly, even holding income constant. They hold more housing equity. The effect of all these adjustments is to increase incomes of the elderly by about 12%. The most important changes for the nonelderly are taxes, and work-related benefits. These changes decrease average income by 10%. As a result, as shown in line B, the ratio of household incomes increases to 0.65.

Adjusted income in Table 10 differs from income in two ways. The most important difference is due to underreporting of income: according to a validation study of survey data, the nonelderly underreport on average by about 3%, but the elderly underreport by about 37%, mainly property income (Radner, 1983).⁹ This adjustment, which is done for each income source at the household level, substantially increases the income ratios. The other adjustment changes the method of valuing the nonmoney transfers in line B: they are valued at an estimate of what the recipient would be willing to pay for them (recipient value), rather than at the cost to the provider (market value). The recipient value is less than the market value especially for the poor. This adjustment lowers the income ratio due to the large transfers through the Medicare/Medicaid system, but the change is minor compared with the change for income underreporting.

The table has three different adjustments to household income for household size and composition. The aim is to bring household income closer to an individual welfare measure by dividing income by a suitable index. The index used in calculating per capita income is, of course, just the number of people in the household. It embodies the assumption that there are no returns to scale in household consumption. The poverty line index is based on the poverty scale; it was used in the size adjustments in Table 8. It implies substantial returns to scale: according to this index, if a single elderly male has a consumption weight of 1.0, a husband and wife have a consumption weight of 1.26. That is,

the couple would be deemed to be as well off as the single male if their income was 26% greater. The budget share index was estimated from observed variation in consumption patterns as family composition varied in the 1972-73 Consumer Expenditure Survey (van der Gaag and Smolensky, 1982). At least conceptually this is the best of the indices of household size. Compared with the poverty scale it has more modest returns to scale in consumption: according to this index an elderly husband and wife need about 37% more income than a single male.

In my view line B is a better income-based measure of welfare because it is more inclusive. In principle, adjusted income is superior to income, although the adjustment for underreporting only makes sense on average: the underreporting is mainly associated with property income which is highly concentrated. As a rough welfare measure, household income is too high, as it implies it is costless to add additional individuals to a household. Per capita income is too low because it bars any returns to scale. The poverty line index is not based on any observed behavior or theoretical model. That leaves the budget share measure. The income and adjusted-income ratios are 1.04 and 1.28 respectively, implying that in 1979 the elderly were at least as well off on average as the nonelderly, and possibly better off.

The results in Table 10, which are based on detailed analysis of 1979 CPS data, can be updated by applying the observed growth in CPS income. According to the CPS, the ratio of mean incomes of the elderly to the nonelderly increased by 12.3% between 1979 and 1986. If all the components and adjustments to income of Table 10 grew at the same relative rate, the income ratio would grow from 1.04 to 1.17 and the adjusted-income ratio from 1.28 to 1.44.

Most researcher would agree, I believe, that on average the elderly are at least as well off as the nonelderly as measured by income,¹⁰ but, as the entries in Table 10 suggest, the magnitude of the differential is not precisely measured. From the point of view of public policy, however, precision is not

required: if the elderly are as well off as the nonelderly, there is little reason for new policy that would transfer income to them. Policy should concentrate on the distribution of income among the elderly.

3.3. Distribution of Income.

Even though Social Security is an important source of income and it acts strongly to reduce income inequality through the progressivity of the schedule from lifetime earnings to benefits, income of the elderly appears to be more unequally distributed than income of the nonelderly. Table 11 has Gini coefficients of income and the percentage of income to the highest income quintile. Although there is some variation by year, data set and income measure, both inequality measures show more income inequality among the elderly than among the nonelderly. The results from the 1973 Consumer Expenditure Survey and the 1979 CPS (unadjusted) are based on the same income measure and they yield about the same Gini coefficients. The adjustments to income in the 1979 CPS reduce income inequality because the well-to-do have higher tax rates and the poor receive a larger fraction of their budgets from nonmoney transfers. The differences between the unadjusted and adjusted inequality measures are greatest among the elderly because of the importance of Medicare and Medicaid. The last three lines are based on consistent methods of measuring income in the CPS: they embody the poverty scale size adjustment for household size discussed earlier. They verify increasing inequality from 1979 to 1984 especially among the nonelderly, as was found in Table 9.

Income levels, sources of income and the changes in income by source are very different for the highest and lowest quintiles. Table 12 shows that the lowest quintile had about 8% of the income of the highest quintile in 1967; about 13% in 1979 and 12% in 1984.¹¹ Earnings in the lowest quintile were

negligible. For this group, Social Security benefits were the only important source of income, and benefit increases were the main reason for increasing income: of the \$1870 change in real income between 1967 and 1984, 81% was due to increases in Social Security benefits. Real earnings of the highest quintile fell over the 17-year period, but the other components of income increased sharply. Social Security benefits increased by a factor of 2.5, which is a higher rate than the rate of the lowest quintile. The category "Other" is, for the highest quintile, mostly pensions.

The growth in Social Security benefits, especially between 1967 and 1973, is at least partly due to an upward shift in the benefit schedule, partly to earlier retirement (which causes a shift in income from earnings to Social Security benefits), and partly to increasing lifetime contributions of each cohort. Table 13 gives Social Security benefits of the cohort born in 1893-1897 which, except for mortality, holds constant lifetime earnings. Because most people had retired by age 70, it also eliminates much of the retirement effect on benefits. Thus, most of the change will be due to changes in the benefit schedule.

Between 1967 and January, 1972 the benefit schedule was changed to increase benefits by 43% holding lifetime earnings constant. A further increase in September, 1972 raised the total change from 1967 to 72%. Total inflation over the period was about 25%. In Table 13 mean real benefits increased by about 36% (38% for the fifth decile) between 1967 and 1972, which is consistent with the changes in the benefit schedule. Following the increase in 1972, benefits have been indexed, so any increases in average benefits after retirement come from compositional effects. (For example, the poor die sooner than the well-to-do, so average benefits will rise with age.) The table shows, again, the importance of Social Security benefits, especially for the very elderly: in 1982 they were 70% of the income of 85-89 year-olds.

3.4. Poverty

The poverty rate of the elderly is an aspect of income distribution that has been the object of considerable study probably because until recently it has been high and because poverty is especially troubling for the elderly. They have few ways to recover from a loss of income, so a fall into poverty tends to be permanent.

The poverty rate is the fraction of a population whose incomes fall below the poverty line, which varies by age and household composition. The poverty line for a single elderly person was \$5,447 in 1987; it was \$6,871 for an elderly couple. I suspect that most people would regard the poverty line as low indeed, and that someone with income substantially above the poverty line is still poor.

Table 14 shows that, in line with the increases in income, the poverty rates of the elderly have declined sharply. By 1984 they were lower than the poverty rates of the nonelderly, and they remained lower through 1987.¹² As reference to Table 12 shows, the Social Security system can claim a major role in the rather remarkable reduction of poverty among the elderly. The decline was largest for the oldest. Yet their poverty rate remains high for reasons connected with widowhood, as will be discussed below.

Putting a value on nonmoney income transfers increases income measures of the elderly considerably, which should lead to a large reduction in poverty rates. The following table shows that to be the case.

Poverty Rates in 1979, percent

Age	Household Money Income	Household Money Income plus <u>food and housing</u>		Household Money Income plus <u>food, housing and medical</u>	
		Market	Recipient	Market	Recipient
<65	10.6	8.9	9.0	6.7	8.3
65+	14.7	12.9	13.7	4.5	7.0

Source: Smeeding, 1982

The table has poverty rates by age for various income measures.¹³ The market measure values nonmoney transfers at cost; the recipient measure values them at an estimate of their value to the recipient.¹⁴ Including food and housing transfers in income reduces poverty modestly for both elderly and nonelderly. Due to the size of Medicare and Medicaid, however, including medical transfers has a large effect: if medical transfers are valued at market cost, the poverty rate of the elderly was 4.5% in 1979. In my view, the size of the transfer is so large (about \$1,344 in 1979 dollars), especially in relation to the income levels of the poor elderly, that any poverty rates based on augmented income are bound to be only suggestive.¹⁵ Nonetheless, the implicit transfers in the Medicare and Medicaid program are large and certainly they are of value to the poor elderly. The transfers have continued to grow much faster than the rate of inflation (they grew by about 36% in real terms between 1979 and 1984), suggesting that the poverty rates of the elderly in Table 14, which were already below the poverty rates of the nonelderly, would be substantially below following some adjustment for nonmoney income transfers.

The poverty rate of elderly widows has also declined, but it remains considerably higher than the poverty rates of the population and of the rest of the elderly. Some of the poverty is undoubtedly due to the high fraction of the

very elderly that are widows: cet.par. one would expect the very elderly to be poor simply because they must finance a longer lifetime of consumption from a given lifetime wealth. Table 15 shows, however, that the explanation is more complicated. It is true that widows aged 72 and over had higher poverty rates than widows aged 65-71; but younger widows had poverty rates at least as high.

One explanation is differential mortality by income level: husbands in poor families die sooner than husbands in well-to-do families. For example, in the RHS the poverty rate in 1969 of couples who survived intact during the entire ten years of the RHS was 7.6%. The poverty rate in 1969 of couples in which the husband eventually died during the ten years of the RHS was 11.7% (Holden, Burkhauser and Myers, 1986). One might think the difference in poverty rates is caused by health expenditures in the several years before the husband's death; but the association with poverty in 1969 and eventual widowhood lasts over many years. For example, the poverty rate in 1969 of couples in which the husband died between 1977 and 1979 was 9.2%, again compared with 7.6% for couples intact between 1969 and 1979.

Mortality rates are also associated with wealth levels (Table 16). Couples in the 1977 RHS were divided into two groups: those who survived intact between 1977 and 1979 (surviving couples) and those in which the husband died between 1977 and 1979 (widowed couples). The table gives median wealth in each of the six RHS surveys (covering the years 1969 to 1979) by that classification. All the wealth categories show that the surviving couples had higher wealth than the widowed couples as early as 1969, more than eight years before the husband died.¹⁶ These results imply that the widowed couple would have had fewer assets had the husband survived, and, therefore, would have had a higher probability of being in poverty.¹⁷ The causes of the differential mortality are not known, but there is some indication that lifetime health differences play a role. Table 16 shows that Social Security wealth and pension wealth, both of which are

good summaries of lifetime earnings, were higher for the surviving couples.¹⁸ This suggests that lifetime health differences affect both lifetime earnings and mortality rates after retirement, causing the observed correlation.

Beyond differential mortality the transition to widowhood itself seems to induce poverty. Table 17 gives poverty rates by marital transition between 1975 and 1977 for the entire sample of 1975 couples and for the 1975 couples not in poverty in 1975. The table shows that widowed couples (1975-1977) had somewhat but not greatly higher poverty rates than the other couples in the years before the husbands died. However, in the first survey year after the husbands deaths the poverty rate of the surviving widows rose to 42% while the poverty rate of the intact couples was just 7%. Other calculations (not given here) show that the average increase in poverty following widowhood was 30%. The increase is partly due to income mismeasurement associated with the husband's death (Burkhauser, Holden and Myers, 1986), but mostly due to permanent changes in economic resources as shown by the high poverty rate in 1979. The two right-hand columns give poverty of couples that were above the poverty line in 1975. 37% of the surviving widows, none of whom had been in poverty in 1975, were in poverty in 1977.

One might well imagine that much of the increase in poverty at the husband's death is due to the termination of his earnings. Apparently, however, this is not the case: using RHS data Burkhauser, Holden and Feaster (1988) studied the determinants of the hazard of poverty of widows, the probability of entering poverty among those not already in poverty. Only 10.1% of the transitions into poverty were associated with the loss of the husband's earnings. About two-thirds of the cases were associated with widowhood itself and with a decline in nonwage income, particularly Social Security. Even after the husband's retirement (so that he had no earnings), the probability of a transition into poverty when the husband dies is high (Holden, Burkhauser and

Feaster, 1988)

Changes in the components of wealth at the husband's death provide some explanation for the high poverty rates of widows. Among the widowed couples, wealth in all the categories declined between 1977 and 1979 (Table 16).¹⁹ Similar calculations over all transition years in the RHS show that total median wealth declined by 31% during the years of the husband's death compared with an increase of 2% over the same years among surviving couples. Most of the loss is in Social Security wealth, which is to be expected: according to the Social Security rules the couple's benefit is reduced when the husband dies. For couples of this age and cohort the typical reduction would be about 33% of the couple's benefit. Because the poverty line of a single elderly person is just 21% below the poverty line of an elderly couple, the difference in the changes in Social Security benefits and the poverty line will itself cause some widows to become poor. There is no particular reason to believe that either factor properly reflects returns to scale in consumption: both are arbitrary.

Table 16 shows that pension wealth declines sharply when the husband dies: at the time of the RHS most husbands did not have pensions with survivorship rights (Myers, Burkhauser and Holden, 1986). The Retirement Equity Act of 1984 is meant to encourage the choice of a pension with survivorship rights. Previously the pension beneficiary (typically the husband) could choose a pension with no survivorship rights. Since 1984 the pension will have survivorship rights unless both the husband and the wife request otherwise. Simulations over the RHS population show that changing all pensions to have survivorship rights would have raised substantially the incomes of those widows whose husbands had pensions without survivor's benefits. However, the poverty rate of all widows would have been remained high, about 22%, compared with 26% before the change. The effect on the poverty rate was small for two reasons: first, about 30% of pensions had survivor's benefits already; second, there is

a strong positive association between economic status and pension eligibility, so that few of the poor widows would have been eligible for pension benefits even with survivorship rights. This general result should carry over to the population. It is hard to see that survivorship rights to pensions will have a large impact on the high poverty rates of widows.

The causes of the high rates of poverty among elderly widows are varied and complex. Some families reach retirement already poor or near poor. Were the husband to survive the family would have a high risk of poverty, but because husbands in poor families tend to die sooner than husbands in wealthy families, often the widow inherits the family's poverty. In addition some sources of income drop when the husband dies and some wealth is reduced. How much poverty is due to the spending of assets as an individual ages is not clear. Cross-section poverty rates have cohort effects: the oldest are from cohorts that had lower lifetime earnings. We need panel data over, say, 20 years to control for cohort effects: we could then observe the life cycle effects.

3.5. Wealth.

Although income is practically the only measure of economic status in use, life cycle considerations suggest that, at least for the retired elderly, wealth is a better measure because it measures consumption opportunities. However, the kinds of intergenerational comparisons that are based on income cannot easily be made using wealth because a large fraction of the wealth of workers is future earnings, which are not observed. Even wealth comparisons among the retired elderly of different ages are not straightforward because of variation in life expectancy: for example, who is better off, a 70 year-old with \$100,000 or an 80 year-old with \$50,000? One could, of course, calculate the annuity each could purchase to translate the comparison into income terms, but the

consumption path implied by the annuity might not be the desired path. Another method would be to ask whether the 70 year-old he would have more or less than \$50,000 should he live to 80. This involves finding the optimal consumption path. Although there has been some research on consumption paths of the elderly (to be discussed later), the research is not well-enough advanced to make confident comparisons based on the estimated paths. Notwithstanding these problems of comparison, wealth data are a valuable alternative or supplement to income data.

The following table has estimates of average bequeathable wealth of the elderly.²⁰

	<u>1984 SIPP</u>	<u>1983 SCF without supplement</u>	<u>1983 SCF with supplement</u>
Mean	91,000	106,000	250,000
Median	60,000	n.a.	52,000

Sources: SCF with supplement: Avery and Elliehausen, 1986; SCF without supplement: Avery, Elliehausen, Canner and Gustafson, 1984; SIPP: Radner, 1989.

Both the Survey of Program Participation (SIPP) and the Survey of Consumer Finances (SCF) without supplement are self-weighting samples.²¹ The estimates of mean wealth differ somewhat but they are probably not significantly different. (Given the typical dispersion of wealth, the standard errors are bound to be very large.) The SCF with supplement differs from the SCF without supplement by the addition of 438 high income households.²² Even though both of the SCF estimates of mean wealth are weighted by the sampling weights, so that, in principle, the means should be the same, the estimates are widely different. This happens because wealth is so highly concentrated. (The Gini coefficient in

the wealth of the elderly is 0.78 from the SCF with supplement (McDermed, Clark and Allen, 1987), whereas the Gini coefficient of income is about 0.35. The fraction of wealth in the top 1% of the wealth distribution is about 35%.) The high concentration of wealth, makes it difficult to find wealth measures that represent the situation of most of the elderly. An alternative to the mean is, of course, the median. But it has drawbacks for studying the sources of wealth, which has been an important research topic: the medians of the wealth components cannot be aggregated and some categories will have medians of zero. For these reasons and for comparability with the RHS and other data sets (which are self-weighting), I analyze mean wealth from the SCF without supplement and from the SIPP.

Mean wealth of the elderly was about \$100,000 in these data sets. This does not include a few asset categories such as consumer durables, but much more important from the point of view of describing available resources it does not include any claim on Social Security, pensions or Medicare/Medicaid. At a real interest rate of 3% the assets add just \$3,000 per year to income from other sources. This is about 18% of the average household income of the elderly in 1983 (\$16,386). Should an elderly person consume part of the wealth as he ages, the wealth could make a much higher contribution to consumption. Suppose, for example, a 70 year-old woman chose a flat consumption over 15 years, which is about her life expectancy. At a real interest rate of 3%, she could consume \$8,300 per year (1983\$) from the wealth. This is about 51% of average income in 1983. Of course, a flat consumption path is probably not optimal (she might live to 86), but the example implies that, on average, wealth accumulation for retirement is adequate, provided the wealth is consumed.

To form a complete picture of the resources of the elderly we need more inclusive wealth measures than are available from either the SCF or the SIPP. Table 18 has fully inclusive average net wealth from the 1975 and 1979 RHS. The

ages of most of the heads of households were 64-69 in 1975 and 68-73 in 1979, so the table shows wealth near the beginning of retirement. In fact, future earnings accounted for only 6% of wealth in 1975 and 3% in 1979, so, practically speaking, the sample had retired by 1979. Financial wealth includes stocks and bonds, savings accounts and so forth. Flows (all but the first three entries) are converted to stocks through actuarial discounting, either real or nominal depending on the flow. SSI is Supplemental Security Income, a means-tested old age welfare program. Transfers includes transfers from relatives and children. Medicare and Medicaid is the expected present value of the per household transfer through the Medicare and Medicaid program evaluated at cost, the market value discussed earlier.²³

The average wealth levels are reasonably high and consistent with independent measures of income and wealth.²⁴ I imagine, however, that most people would be surprised at how little saving is in the conventional form of financial, business and property wealth: about 22% in 1975 and 23% in 1979. Adding in housing equity to find the fraction of saving that takes place at the household level brings these figures to 36% and 41%. Pensions and Social Security, which are savings done by firms and society on behalf of the household, accounted for 46% in 1975. Both in levels and as percentages of total wealth, the sum of pensions and Social Security fell between 1975 and 1979 because of higher mortality discounting as the RHS sample aged, and, in the case of pensions, because inflation reduced the real value. Undoubtedly, for the same reasons I discussed earlier in connection with the valuation of the income flow from Medicare and Medicaid, the most controversial entry is the wealth value of Medicare and Medicaid.²⁵ It accounted for 10% of wealth in 1975 and 12% in 1979.²⁶ Its value rose between 1975 and 1979 despite the aging of the RHS population (the actuarial discounting is higher at greater ages) because the growth in Medicare and Medicaid transfers was much higher than the inflation

rate.

The level of wealth in the lowest wealth decile is low indeed, and consists almost entirely of wealth from public programs. Any underreporting is not likely to be substantial because most underreporting is associated with financial assets; but even allowing for some, it is clear that many elderly reach retirement with very little. Research has not discovered why this happens.

Notes

1. An additional reason for this difference is that women tend to marry older men.
2. A household is classified as elderly if the "householder" is elderly; earnings can come from a nonelderly spouse.
3. In much of this section I use averages or other summary measures. The elderly are a very diverse population, however, so the averages will mask the 4. Although the consumption bundles of the elderly and the nonelderly are somewhat different, a Laspayres index based on the consumption bundle of the elderly has varied little from the CPI over either short or long time periods (Boskin and Hurd, 1985; Bridges and Packard, 1982). Therefore, I use the CPI to convert nominal dollars to real dollars unless the original research used some other index.
5. The poverty scaling is rather arbitrarily based on food consumption in 1955 (Palmer, Smeeding and Jencks, 1988).
6. In 1984 average hourly real nonagricultural earnings were almost exactly the same as in 1967. Table B-44, 1988 Economic Report of the President.
7. The table does not show the experience of any cohort; it measures changes in the means of the deciles of each age interval.
8. There was, of course, some change in composition due to mortality between 1979 and 1984, which probably tended to increase average income. This issue will be discussed later in connection with age-related wealth changes.
9. The validation study used outside information from Social Security and IRS records to check the accuracy of income items in the 1973 CPS.
10. In addition to the studies already discussed, see Boskin and Shoven (1987); Danziger et. al. (1984a, 1984b); Hurd and Shoven (1982, 1984); Ross, Danziger and Smolensky (1987).
11. Income is observed cash income from the CPS adjusted for household size

according to the poverty scale.

12. In 1987 the poverty rate of the elderly was 12.2% and of the population was 13.5%. This more recent data does not have the age detail of Table 14.

13. The entries under money income vary from the official poverty levels (and from the levels in Table 14) because of difference in weighting.

14. The method aims to find the expenditures the recipient family would have made, given its characteristics and income, if it had purchased the nonmarket transfers in markets. The ratio of the estimated expenditures to the market value of the transfers is the benefit weight. The benefit weight for Medicare and Medicaid transfers is 0.42 (Smeeding, 1982).

15. For example, it seems unlikely that if a two-person elderly household at the poverty line (\$4,400) were given an additional \$1,344 and the opportunity to buy into the Medicare and Medicaid program, it would choose to spend the full \$1,344 in such a way.

16. Table 16 is an example of many similar results obtained when the classification is by marital transition in other years.

17. Similar results have been obtained by Jianakoplos et al (1989) in the National Longitudinal Survey of older men.

18. Age will cause differences in the wealth measures of Social Security and pensions because the discounting that converts the future flows to stocks rises with age. But the wealth differences are too large to be caused by age differences: the husbands in the widowed couples were about 0.35 year older than the husbands in the surviving couples.

19. Earnings are not shown in the table: because the husbands were 66-71 year old in 1977, median earnings were zero.

20. Family unit wealth in the SCF; household wealth in the SIPP.

21. Wealth includes financial assets, real estate, and housing equity, all net of debts. It excludes pension and Social Security wealth, the cash value of

life insurance and household durables. The SCF also excludes the value of automobiles and equity in small businesses and farms. The sample sizes are 3824 (SCF) and 18,700 (SIPP) all ages included.

22. Although weights are given for the high income households, it is by no means clear that weighted averages are accurate: only 9% of the high income families that were asked to participate in the survey responded that they would participate. This raises obvious questions about the representativeness of the sample.

23. This is the method used by Smeeding (1989), and by Clark, et. al. (1984).

24. For example, Smeeding (1989) calculates full income of the elderly to be \$13,423; if the wealth in 1979 were annuitized at a 7% interest rate and 4% mortality rate, it would yield \$16,137. Given that this applies to 68-73 year olds who are more wealthy than older cohorts, the figures seem quite consistent. Radner (1989) reports mean financial and housing wealth of 65-74 year-olds from the SIPP to be \$99,800, which is \$69,700 in 1979 dollars. The comparable wealth figure in the 1979 RHS, when most heads of households were 68-73, is \$71,100. However, both the SIPP and the RHS wealth figures are substantially below the SCF (without supplement) wealth figures: for 65-74 year-olds they are \$91,300 in 1979 dollars.

25. The market valuation for most elderly may be fairly accurate: many elderly purchase additional medical insurance beyond Medicare and Medicaid. This indicates that, from Medicare and Medicaid alone, they are not at a corner solution in their demand for medical coverage, and that, apart from wealth effects, market valuation is appropriate. This argument would not hold for the poor elderly many of whom do not purchase additional medical coverage (U.S. Senate Special Committee on Aging).

26. These fractions are very close to the fraction of income from Medicare and Medicaid (10%) in Smeeding (1989).

Table 1

Fraction of Population of Different Ages:
Actual, 1900-1980 and Predicted 1990-2050 (Middle Series)*

	% aged 55-59	% aged 60-64	% aged 65-69	% aged 70-74	% aged 75+	% aged 75-79	% aged 80-84	% aged 85+
1900	3	2	2	1	1			
1910	3	2	2	1	1			
1920	3	3	2	1	1			
1930	4	3	2	2	2			
1940	4	4	3	2	2			
1950	5	4	3	2	3			
1960	5	4	3	3	3			
1970	5	4	3	3	4			
1980	5	4	4	3	4	2	1	1

	% aged 55-59	% aged 60-64	% aged 65-69	% aged 70-74	% aged 75-79	% aged 80-84	% aged 85-89	% aged 90-94	% aged 95+
1990	4	4	4	3	3	2	1	0	0
2000	5	4	3	3	3	2	1	1	0
2010	7	6	4	3	2	2	1	1	0
2020	7	7	6	4	3	2	1	1	0
2030	6	6	6	5	4	3	2	1	0
2040	6	5	5	5	4	4	2	1	1
2050	6	6	5	4	4	3	3	2	1

Source: U.S. Bureau of the Census, Current Population Reports Series P-25, No. 952.
Projections of the Population of the U.S. by Age, Sex, and Race, 1983-2080.
May 1984; table 6.

* The middle series (series 14) is based on intermediate assumptions about fertility, mortality and immigration.

Table 2

Actual and Predicted Life Expectancy at Age 65

	<u>Male</u>	<u>Female</u>
1900	11.3	12.0
1910	11.4	12.1
1920	11.8	12.3
1930	11.4	12.9
1940	11.9	13.4
1950	12.8	15.1
1960	12.9	15.9
1970	13.1	17.1
1980	14.1	18.3
1990	15.0	19.5
2000	15.7	20.5
2010	16.1	21.2
2020	16.5	21.7
2030	16.8	22.1
2040	17.1	22.6
2050	17.4	23.1
2060	17.8	23.6

Source: Committee on Ways & Means, 1987.

Table 3

Distribution of Living Arrangements of the Elderly, Men and Women (Percent)

Age 65+	Men				Total	Women				Total
	With Spouse	Alone	Relatives	Non-relatives		With Spouse	Alone	Relatives	Non-relatives	
1960	69	12	14	4	100	36	24	34	4	100
1970	71	15	10	5	100	36	34	26	4	100
1980	75	14	8	3	100	37	40	20	2	100
1985	75	15	7	3	100	38	41	18	2	100
<u>Age 65-74</u>										
1960	75	11	10	4	100	44	23	28	5	100
1970	76	12*	8	4*	100	45	31*	20	4*	100
1980	80	11	6	3	100	48	35	16	1	100
1985	79	12	6	3	100	49	35	14	2	100
<u>Age 75+</u>										
1960	57	15	22	6	100	20	26	46	7	100
1970	60	20*	16	4*	100	21	37*	36	6*	100
1980	66	21	11	2	100	21	48	27	4	100
1985	67	20	10	3	100	23	50	25	2	100

Sources:

- 1985 Data: U.S. Bureau of the Census, Current Population Reports Series P-20, No. 410, Marital Status and Living Arrangements: March 1985, Table A-12.
- 1980 Data: U.S. Bureau of the Census, 1980 Census of Population, PC80-2-4B, Living Arrangements of Children and Adults, Table 4 and Current Population Reports, Series P-20, No. 3651, Marital Status and Living Arrangements: March 1980, Table 6.
- 1970 Data: U.S. Bureau of the Census, 1970 Census of Population, PC(2)-4B, Persons by Family Characteristics, Tables 2 and 11.
- 1960 Data: U.S. Bureau of the Census, 1960 Census of Population, PC(2)-4B, Persons by Family Characteristics, Tables 2 and 15.

* Interpolations. Age detail not available.

Note: Noninstitutional population

Table 4

Mean Household Income of the Elderly and of
the Population, 1983 Dollars

<u>Year</u>	<u>Mean 65+</u>	<u>Mean All</u>	<u>Ratio</u>
1970	13,901	25,660	.54
1975	16,188	26,580	.61
1980	15,268	25,467	.60
1985	17,411	26,919	.65
1986	18,006	27,949	.64

Source: Money Income of Households, Families and Persons, Current Population Reports. Series P-60, various years.

Table 5

Distribution of Sources of Income (Percent)

	<u>1967</u>	<u>1976</u>	<u>1984</u>	<u>1986</u>
Earnings	29	23	16	17
Social Security	34	39	38	38
Pensions & Other Retirement	15	16	15	16
Assets	15	18	28	26
Public Assistance	4	2	1	1
Other	3	2	2	2
Total	100	100	100	100

Source: "Retirement Income for an Aging Population" and "Income of the Population 55 & Over, 1986", Current Population Reports.

Table 6

Percentage Distribution of Elderly Households by Importance of Income Source

	<u>1971</u>	<u>1980</u>	<u>1986</u>
A. Earnings			
Total Percent	100	100	100
0	69	78	81
1-49	16	12	11
50-100	15	10	8
90-100	5	2	2
B. Social Security			
Total Percent	100	100	100
0	13	9	8
1-49	38	32	35
50-100	49	59	57
90-100	17	23	24
C. Private Pensions & Annuities			
Total Percent	100	100	100
0	83	79	74
1-19	6	10	13
20-49	8	9	11
50-100	3	2	2
D. Government Pensions			
Total Percent	100	100	100
0	94	89	87
1-49	3	7	8
50-100	3	4	5
E. Income from Assets			
Total Percent	100	100	100
0	51	41	40
1-19	27	33	30
20-49	15	17	18
50-100	7	9	12

Sources: Income of the population aged 60 and older, Social Security Administration, various years.

Table 7

Labor Force Participation Rates (Percent)

<u>Year</u>	<u>Men</u>					<u>Women</u>				
	<u>55-59</u>	<u>60-64</u>	<u>65-69</u>	<u>70-74</u>	<u>75+</u>	<u>55-59</u>	<u>60-64</u>	<u>65-69</u>	<u>70-74</u>	<u>75+</u>
1957	91.4	82.9	52.6	*	*	38.2	30.3	17.5	*	*
1965	90.2	78.0	43.0	24.8	14.1	47.1	34.0	17.4	9.1	3.7
1970	89.5	75.0	41.6	25.2	12.0	49.0	36.1	17.3	9.1	3.4
1975	89.4	65.5	31.7	21.1	10.1	47.9	33.2	14.5	7.6	3.0
1980	81.7	60.8	28.5	17.9	8.8	48.5	33.2	15.1	7.5	2.5
1985	79.6	55.6	24.5	14.9	7.0	50.3	33.4	13.5	7.6	2.2
1987	79.7	54.9	25.8	14.7	7.1	52.2	33.2	14.3	6.8	2.4

Source: Labor Force Statistics Derived from the CPS, 1948-1987. U.S. Department of Labor, Bureau of Labor Statistics, #2307, August, 1988.

* Not available

Table 8

Growth in Average Real Family Unit Income

	<u>Annual Income Growth (%)</u>		<u>Income in</u>
	<u>1967-1979</u>	<u>1979-1984</u>	<u>1984*</u>
A. No Size Adjustment			
Under 65	1.0	-0.4	27,464
65+	1.5	3.4	18,279
B. Size Adjustment			
Under 65	1.7	0.5	16,293
65+	2.2	3.7	14,160
65-69	1.8	3.8	16,496
70-74	2.1	4.2	14,401
75-79	3.0	3.1	12,617
80-84	2.9	3.3	11,469
85+	2.7	5.5	11,825

Source: Radner (1987)

* Measured in 1982 dollars.

Table 9

Annual Percentage Change of Average Real Family Unit Income
Adjusted for Size

<u>Age of Head</u>	<u>2nd decile</u>		<u>9th decile</u>	
	<u>1967-79</u>	<u>1979-84</u>	<u>1967-79</u>	<u>1979-84</u>
20-24	0.9	-7.4	1.3	-2.4
25-29	0.3	-4.4	1.7	0.8
30-34	1.8	-3.3	2.6	0.6
35-39	1.5	-1.6	2.7	1.5
40-44	1.7	-2.2	2.3	2.0
45-49	1.0	-1.3	1.9	2.4
50-54	1.2	-2.2	1.9	1.6
55-59	2.2	-2.6	2.4	0.9
60-64	2.5	0.5	1.9	0.4
65-69	3.2	3.7	1.5	3.1
70-74	3.2	2.0	2.0	4.5
75-79	4.0	2.4	2.8	3.2
80-84	4.2	1.9	2.1	4.1
85+	5.5	1.2	2.5	8.0
Age 15-64	1.1	-2.8	1.9	1.1
Age 65+	3.6	2.3	1.8	3.7

Source: Radner (1987).

Table 10

Income of the Elderly Relative to the Nonelderly, 1979

	Income				Adjusted income			
	Household	Poverty Line Index	Budget Share Index	Per capita	Household	Poverty Line Index	Budget Share Index	Per capita
A. Conventional Income	0.52	0.64	0.84	0.90	0.66	0.82	1.07	1.16
B. Conventional Income plus Employment Benefits, and Income-in-kind Less taxes	0.65	0.80	1.04	1.14	0.79	0.99	1.28	1.40

Note: Entries are the ratios of household incomes of the elderly to the nonelderly.

Source: Smeeding (1989), and author's calculations.

Table 11

Distribution of Income

<u>Year, Data and Income Measure</u>	<u>Gini Coefficients</u>		<u>Percent of Income to upper income quintile</u>	
	<u>Age < 65</u>	<u>Age ≥ 65</u>	<u>Age < 65</u>	<u>Age ≥ 65</u>
1973 Consumer Expenditure Survey ¹	0.36	0.44	40.4	49.8
1979 CPS ²	0.35	0.43	40.6	49.5
1979 CPS; Adjusted ³	0.31	0.35	37.2	42.8
1967 CPS; Family Size Adjustment ⁴	0.36	0.42	41.6	51.6
1979 CPS; Family Size Adjustment ⁴	0.36	0.40	41.3	47.1
1984 CPS; Family Size Adjustment ⁴	0.40	0.42	44.2	48.1

¹ Danziger et.al. 1984a. Household income.

² Smeeding, 1989. Household income.

³ Smeeding, 1989. Household income adjusted for nonmoney income, taxes and employment-related income as in Table 10, B, "Income", "Household".

⁴ Radner, 1987, Family unit income. Size adjustment based on poverty scale.

Table 12

Average Family Unit Income of the Elderly by Source of Income,
Selected Quintiles (1982 \$), Adjusted for Family Size

<u>Income Quintile</u>	<u>Year</u>	<u>Total Income</u>	<u>Earnings</u>	<u>Social Security Benefits</u>	<u>Property</u>	<u>Other</u>
Lowest	1967	2,116	54	1,589	107	366
	1979	3,484	65	2,694	142	583
	1984	3,986	73	3,102	168	643
Highest	1967	23,572	14,352	2,344	4,801	2,076
	1979	27,798	10,379	4,811	8,047	4,561
	1984	34,061	9,450	5,901	13,289	5,421

Source: Radner (1987) Table 14.

Table 13

Social Security Income of
Family Units (1982 \$) Adjusted for Size

<u>Age and Year</u>	<u>All Deciles</u>		<u>Fifth Decile</u>	
	<u>Social Security Income</u>	<u>Percent of Total</u>	<u>Social Security Income</u>	<u>Percent of Total</u>
70-74; 1967	2,850	31	3,320	55
75-79; 1972	3,880	37	4,570	67
80-84; 1977	4,330	38	4,960	71
85-89; 1982	4,560	37	5,270	70

Source: Radner (1987).

Table 14

Poverty Rates of Family Units (Percent)
Based on Family Unit Money Income

<u>Age</u>	<u>1967</u>	<u>1979</u>	<u>1984</u>
Under 65	11.8	11.1	14.5
65 +	28.1	15.1	12.4
65-69	21.9	12.2	9.4
70-74	25.8	13.4	11.5
75-79	33.8	17.9	13.7
80-84	38.2	19.4	17.7
85 +	38.9	22.7	18.5

Source: Radner (1987) p. 19.

Table 15

Poverty Rates of Widows (Percent)

<u>Year</u>	<u>60-61</u>	<u>62-64</u>	<u>65 and over</u>		
			<u>Total</u>	<u>65-71</u>	<u>72+</u>
1971	—	—	35.1	—	—
1976	22.8	22.9	23.3	21.7	24.0
1981	26.2	27.2	25.4	23.9	26.1
1984	27.6	25.5	20.1	18.3	20.9
1986	21.0	20.3	21.0	19.8	21.4

Sources: Current Population Reports, Series P-60, various years.

Table 16

Median Wealth by Change in Marital Status Between 1977 and 1979
(Thousands of 1979 \$)

Marital Transition 1977-1979:	<u>Bequeathable Wealth</u>		<u>Bequeathable Plus Housing</u>		<u>Social Security</u>		<u>Pensions and Annuities</u>	
	Couple to Couple	Couple to Widow	Couple to Couple	Couple to Widow	Couple to Couple	Couple to Widow	Couple to Couple	Couple to Widow
1969	11.9	10.2	38.7	31.8	49.3	48.4	26.0	21.3
1971	13.8	11.5	41.7	34.6	64.0	62.9	39.3	31.6
1973	13.0	10.4	43.3	36.8	73.7	70.1	27.0	23.7
1975	15.9	12.4	47.8	41.7	69.4	64.2	20.4	19.3
1977*	15.6	11.5	48.8	47.2	67.8	63.2	23.1	19.4
1979*	16.0	9.8	51.2	45.0	61.0	38.6	16.2	7.0

* Husband in "couple to widow" columns died between these years.

Source: Hurd and Wise, 1989 and author's calculations from the RHS.

Table 17
Poverty Rates (Percent)

Year	<u>Entire Sample</u>		<u>Not Poor in 1975</u>	
	Couple to couple	Couple to widow	Couple to couple	Couple to widow
1969	5	8	3	5
1971	7	11	4	7
1973	8	8	4	4
1975*	8	9	0	0
1977*	7	42	4	37
1979	11	40	11	35

* Husband in "couple to widow" columns died between these years

Source: Unpublished calculations of Hurd and Wise from the RHS

Table 18

Average Household Wealth and the Distribution of Wealth by Source, 1975 and 1979 RHS Sample

	<u>1975</u>		<u>1979</u>		<u>Lowest Wealth Decile 1979</u>	
	<u>Wealth</u>	<u>Percent</u>	<u>Wealth</u>	<u>Percent</u>	<u>Wealth</u>	<u>Percent</u>
Housing	22.4	14	26.9	18	1.4	4
Business & Property	11.0	7	11.6	8	1.1	3
Financial	23.2	15	22.5	15	0.7	2
Pensions	23.2	15	18.0	12	1.6	4
SSI, Welfare & Transfers	2.7	2	2.3	2	3.6	10
Medicare-Medicaid	15.8	10	17.7	12	11.9	34
Social Security	48.4	31	44.0	30	14.2	40
Future Earnings	<u>9.6</u>	<u>6</u>	<u>3.9</u>	<u>3</u>	<u>1.0</u>	<u>3</u>
TOTAL	156.3	100	146.7	100	35.5	100

Notes: Wealth in thousands of 1979 dollars.
Based on 7483 (1975) and 6610 (1979) observations from the RHS.
Farm families and farm wealth excluded.

Source: Hurd and Shoven, 1985.

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