

**THE SURVEY OF INCOME AND
PROGRAM PARTICIPATION**

**The Wealth of the Aged and Nonaged,
1984**

No. 54

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Social Security Administration

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The Wealth of the Aged and Nonaged, 1984*

Daniel B. Radner

I. Introduction

This paper discusses and illustrates the use of wealth data for the analysis of the economic status of households. Selected estimates of wealth for 1984 from the Survey of Income and Program Participation (SIPP) are used as illustrations. The particular focus is on the wealth of age groups, with a special interest in the aged. Comparisons of the amounts and composition of wealth of the aged and nonaged (and of more detailed age groups) are presented. The emphasis is on the economic resources available to households other than the very wealthy. The degree of concentration of wealth, the subject that wealth data traditionally have been used to examine, is not discussed. Thus, this paper reflects a somewhat different perspective on the use of wealth data.

The estimates from SIPP presented here are not intended to provide a complete description of the wealth of age groups. Rather, they are illustrations of several types of useful wealth estimates that can be made from household survey data. For example, one interesting question that can be examined with these data is how many of the aged have both low income and low wealth,

and therefore would be unable to pay for high medical expenses or adjust to income loss.

This paper focuses on the amounts of resources available to units of different ages at a particular time. There is no direct concern with life cycle issues of saving and accumulation. However, saving behavior clearly affects the amount of resources available at a specific time, and the interpretation of the economic status of the aged from the estimates shown here is affected by life cycle considerations. Within an age group and at a particular income level, a unit with more wealth would ordinarily be considered to be better off than a unit with less wealth (assuming that "needs" are the same). Because of life cycle factors, it is not obvious that the aged are better off than the nonaged if they have more wealth than the nonaged. For example, aged households have had much more time than younger households to accumulate wealth.

A complete assessment of the economic status of the aged (and other age groups) requires data about both their wealth and their income. Economic status is usually assessed using data on income, with an occasional examination of wealth. It is relatively rare that both income and wealth are considered. Although the focus in this paper is on wealth, the use of income and wealth data together is discussed.

Detailed age groups are examined because the broad aged and nonaged groups often used are not homogeneous. For example, it is useful to distinguish between younger aged households (in this paper, head aged 65-74) and older aged households (head aged 75

or older). Those two groups differ substantially in many characteristics, such as labor force participation, marital status, and average income. Nonaged households also differ greatly by age. For example, households with head aged 25 have very different characteristics from households with head aged 55, particularly with respect to average income.

Amounts of wealth, the distribution of wealth, the composition of wealth, and the joint distribution of wealth and income in 1984 are examined for age groups. Although data needs for analyzing changes in wealth over time are mentioned, estimates of change in wealth are not presented.

Types of Wealth Estimates

Three basic types of wealth estimates have been made by researchers.¹ First, estimates have been made from data on wealth collected in household surveys. These surveys typically collect a wide range of information that can be used in conjunction with the wealth data. The collection of information on wealth is the focus of some surveys (e.g., the 1962 Survey of Financial Characteristics of Consumers (SFCC)). But in other surveys (e.g., SIPP), wealth is a relatively minor part of the survey. In most cases, data are obtained for households or family units. Ordinarily, the entire wealth distribution is covered. Wealth data from surveys are often considered to be of doubtful accuracy, and estimates of the upper tail of the wealth distribution usually are particularly poor. Sometimes a specific

effort is made to obtain good data for the upper tail (for example, by means of a high-income sampling frame). The 1983 Survey of Consumer Finances used a high-income frame based on income tax return information to improve estimates of high-wealth units (Avery and Elliehausen 1986). Nonresponse and response error, however, are still serious problems in all parts of the distribution in household surveys.

Second, estimates have been made using information from estate tax returns. Multipliers derived from mortality rates are applied to the information for decedents in those returns to produce estimates of the wealth of the living (e.g., Smith 1974; Schwartz 1983). Only limited socioeconomic information is available in this type of data, and the data are for persons. Estate tax data generally are limited to the upper tail of the wealth distribution because the estate tax does not apply below a relatively high exempt amount. The wealth data in specific estate tax returns are considered to be relatively accurate. The accuracy of estimates from estate tax returns has been questioned, however, because of uncertainty about the accuracy of the multipliers used.

Finally, "synthetic" estimates have been made. In this type, estimates of wealth are produced, at least in part, from nonwealth data (e.g., Wolff 1983; Greenwood 1983). Asset income flows have been capitalized into amounts of wealth. Regression analysis has been used to impute amounts of assets for which income flows do not exist. Different data sources have been matched together (sometimes using statistical matching) to

construct microdata files from which synthetic estimates can be made. Generally a wide range of socioeconomic information is available and the entire wealth distribution is covered.

Estimates for households or family units can be made. The accuracy of this type of estimate has been questioned because of the many assumptions required. For example, the proper capitalization rates and regression models are not known and must be approximated. Where statistical matching is used, there is uncertainty about the accuracy of estimated joint distributions.

As noted, the accuracy of each of these types of wealth estimate has been questioned. Because household survey data generally are weakest in the upper tail and estate tax data focus on the upper tail, some analysts have suggested combining data from the two sources to produce improved estimates (e.g., Radner 1975). Synthetic estimates also have a role. In addition to their usefulness as independent estimates, synthetic estimates are also useful for facilitating consistency checks. For example, are survey estimates of financial assets consistent with reasonable capitalization rates for asset income?

Desired Characteristics of the Data

The particular focus of this paper has implications for the characteristics of the wealth data that are needed. There is no direct interest in the upper tail of the wealth distribution. How rich the rich are is not of interest here. The emphasis is on the middle and lower portions of the wealth distribution. The

lack of interest in the upper tail makes the concerns here different from the usual concerns about the data. Thus, a household survey that did not do a good job of capturing the upper tail of the wealth distribution could be of use for the type of analysis discussed in this paper.

Several requirements for the characteristics of the wealth data are discussed below. First, the wealth data must be sufficiently accurate. Although wealth data obtained in household surveys often have been criticized as inaccurate, the problems with accuracy probably are worst in the upper tail of the distribution. The data for the remainder of the distribution also have serious problems; item nonresponse rates can be substantial and answers given can be inaccurate.² The types of estimates presented here are less sensitive to errors in the data than the measurement of inequality or the change in inequality because the upper tail is not important here.^{3 4}

A second requirement is that the wealth data should be reasonably current. For example, the 1962 SFCC is too old to be used for analysis of the current situation. Of course, older data can be useful to examine changes over time.

Third, a data source that covers the entire wealth distribution (or the entire distribution except for the upper tail) is needed. Thus, data sources such as estate tax returns that are confined to the upper tail are not appropriate.

Fourth, wealth data are needed for all age groups of the population. This follows from the fact that both the aged and nonaged are examined and compared. This requirement means that

data sources that are confined to particular age groups (e.g., the Social Security Administration's Retirement History Study (Ireland 1972)) are not appropriate.

Fifth, it is necessary that several types of information other than wealth be available for the unit. Information on income is crucial, and information on socioeconomic characteristics (e.g., unit size, sex, marital status, and age of the unit head) is very important. Data from estate tax returns are inappropriate for this reason also.

Sixth, the wealth data should be available for units other than persons. Families and unrelated individuals (often called family units) or households are the most useful units. Data from estate tax returns do not meet this criterion.

Seventh, the data need to be comprehensive enough so that a reasonable definition of net worth can be formed. Although information on limited sets of assets can be useful, it is not sufficient. Also, asset type detail is needed so that alternative definitions of wealth can be examined. For example, for some purposes net worth excluding home equity or only liquid assets might be examined. Some household surveys do not meet this criterion.

Eighth, the data source should contain a sufficient number of observations so that age groups and other classifications can be examined. Of particular importance is enough observations to separate the aged into subgroups. In some household surveys, sample sizes are too small to meet this criterion.

Several household surveys, including SIPP, meet the first seven criteria. The eighth criterion, sample size, is met best by SIPP among the household surveys. Some synthetic estimates meet all the criteria except one; existing synthetic estimates are relatively old.

Two other characteristics are also important, although they are not directly relevant for this paper. The first concerns social security wealth and pension wealth. Although these types of assets are not examined in this paper, they are important for some kinds of analyses. Thus, it is useful for the data source to have information from which those asset types can be estimated. Second, a longitudinal component to the data would be of great use in the examination of changes in wealth over time, although data on change in wealth are often considered to be of limited accuracy. Also, a consistent time series would be very valuable.

Appropriate Types of Estimates and Comparisons

Because the upper tail is not of interest, the focus of this paper also has implications for the types of estimates and comparisons that are of the most use. First, mean amounts of groups of units that include the upper tail should be used as little as possible. Such estimates can be affected substantially by the upper tail. In general, medians are much more appropriate than means. Second, estimating the overall inequality of wealth is not of interest. Such estimates are very sensitive to the

estimates for the upper tail. Third, if the accuracy of data sources on wealth is assessed by comparing wealth aggregates from the data source to control aggregates, as is often the case, then the upper tail of the distribution should be removed from both sides of the comparison, if possible. Because aggregate amounts of some asset types are highly concentrated in the upper tail (e.g., corporate stock), a substantial adjustment to the control aggregate is necessary if the upper tail is excluded. Of course, comparisons of aggregates are only crude tests of the accuracy of the estimates. Even if the aggregate were correct, the estimated distribution could be very inaccurate.

Plan of the Paper

Section II describes several existing sources of data on wealth and compares selected estimates of the age-wealth cross-section relationship. Estimates of the wealth of age groups in 1984 are presented in Section III. The sensitivity of the age-wealth relationship to the wealth concept used, median net worth by age and net worth quintile, and the size and composition of the wealth held by the middle 60 percent of the wealth distribution in each age group are examined. Section IV presents estimates of the relationship between wealth and income for age groups in 1984. Median amounts of wealth and the wealth of aged households by size of income, the ratio of wealth to income, and the percentage in each age group with relatively low income and

low wealth are discussed. A summary and conclusions are presented in Section V.

II. Comparison of Selected Estimates

It is useful to compare different estimates of the age-wealth relationship to see how similar they are and to see how the estimates from the 1984 SIPP compare to other estimates. Seven data sources are described briefly; then published estimates of the age-wealth relationship from those data sources are compared. The comparisons presented here are intended only to give a general idea of the consistency among the different estimates.

Selected Data Sources

The 1984 SIPP collected information on wealth, income, and socioeconomic characteristics in interviews conducted in September through December of 1984 (U.S. Bureau of the Census 1986b).⁵ The reference point for asset and liability amounts was the last day of the month that preceded the interview. The estimates are for households; persons in group quarters are not included. The estimates are based on information for about 19,000 households. As noted earlier, the collection of wealth data was not the principal purpose of SIPP. A probability sample that represented the U.S. household population was used; there

was no oversampling of high-income or high-wealth units. Net worth, as defined in the estimates shown here, includes home equity, vehicle equity, business equity, financial assets, real estate, and IRA and Keogh accounts, minus debts. The value of household durables, equities in pension plans, and the cash value of life insurance are not included in the estimates.

The 1983 Survey of Consumer Finances (SCF) obtained information on wealth, income, and socioeconomic characteristics (Avery et al. 1984a, 1984b; Avery and Elliehausen 1986). The survey contained two portions, a multi-stage probability sample and a high-income frame. Estimates are shown here for the probability sample alone and for the probability sample plus the high-income frame. The estimates shown here for the probability sample are based on information for about 3,700 family units, while the estimates that include the high frame are based on about 4,100 family units. The high-income supplement was obtained by drawing about 5,000 family units from tax information. Interviews were completed with 438 of those family units (9 percent). Net worth, as defined in the estimates including the high supplement, includes home equity, real estate, business equity, financial assets, and retirement assets (which includes IRA's, Keogh accounts, the cash value of life insurance, and employer-sponsored thrift, profit-sharing, and tax-deferred savings plans), minus debts. The net worth concept used for the estimates that do not include the high frame excludes the cash value of life insurance and at least some business equity. Both

definitions exclude automobile equity, the value of household durables, and pension and social security wealth.

The 1979 Income Survey Development Program (ISDP) file contains information on wealth, income, and socioeconomic characteristics for almost 7,000 households (Radner and Vaughan 1984; Pearl and Frankel 1984). The sample was nationally representative and both low-income and high-income households were oversampled, but only slightly. The estimates shown here are primarily from wave 5 of that multi-wave survey. Net worth, as shown in these estimates, includes home equity, vehicle equity, market value of household durables, business equity, financial assets, and real estate, minus unsecured debt. Social security and private pension wealth, trusts, and the equity value of life insurance are not included in the estimates shown here.

The 1962 Survey of Financial Characteristics of Consumers (SFCC) is regarded by some as the best wealth survey ever undertaken in the U.S. This survey contains wealth, income, and socioeconomic information on more than 2,500 family units (Projector and Weiss 1966). Oversampling was used to provide a better estimate of the upper tail of the wealth distribution. Wealth, as defined in the estimates shown here, included home equity, automobile equity, business equity, liquid assets, and real estate and other investment assets. Unsecured debt was not subtracted; therefore the concept used was wealth, not net worth. The cash surrender value of life insurance policies and equities in annuities and retirement plans were not included in the estimates shown here.

The President's Commission on Pension Policy's household survey collected information on assets and liabilities, income, employment, various demographic characteristics, pensions, and attitudes about retirement in September 1979 (Cartwright and Friedland 1985). Personal interviews were completed with about 3,600 households. The sample was a multi-stage area probability sample; there was no oversampling of the upper part of the distribution. Estimates were presented for units that differ from those presented for other surveys; the units are similar to Census families and unrelated individuals except that family members age 18 or older in general are considered to be separate units. Estimates are presented for about 4,300 of these "family units." In these estimates, net wealth includes home equity, personal property, vehicle equity, business equity, liquid and investment assets, miscellaneous assets, and the imputed present value of employer-based pensions, IRA's, Keogh plans, and annuities.

The Greenwood "synthetic" estimates were made using data from income tax returns, estate tax returns, and a household survey (Greenwood 1983). The basic microdata file used was constructed by statistically matching survey information from the Current Population Survey and income tax returns from the 1973 Individual Income Tax Model. Corporate stock, debt instruments, and real estate held were estimated primarily by capitalizing amounts from income tax return data. Then net wealth was estimated by regression analysis for a sample of 1972 estate tax returns, using the capitalized corporate stock, debt instrument,

and real estate amounts. The regression parameters were used to assign an amount of net wealth to each family unit in the basic file. Net wealth, as used in these estimates, is based on a more comprehensive definition than used in most surveys. In addition to the usual assets, personal possessions and the value of equity in retirement funds, annuities, and life insurance are included in the definition.

Wolff's "synthetic" estimates for 1969 are based on the Measurement of Economic and Social Performance (MESP) microdata file (Wolff 1983). This file contains information on income, asset holdings, debt, and socioeconomic characteristics for more than 60,000 households. Three statistical matches and two sets of imputations were used in constructing the file. Using a statistical match, each household in a 1970 Decennial Census sample that was estimated to have taxable income was assigned federal individual income tax return information. Information on owner-occupied housing was available in the Census data. Other assets and liabilities were imputed to each household. Estimates of some asset values were obtained by capitalizing income flows. Imputation techniques using outside information were used for other asset types. The estimated values were then adjusted to produce consistency with national balance sheet estimates of the household sector. Household disposable wealth, as defined in the estimates shown, includes home equity, household durables (including automobiles) and inventories, liquid and investment assets (including trust equity), business equity, real estate,

the cash value of insurance, and a small amount of cash value for pensions.

The eight estimates described above differed in many respects. The years to which the estimates referred ranged from 1962 (SFCC) to 1984 (SIPP). Thus, any changes in the distribution of wealth during this 22-year period should be reflected in the estimates from these data sources. However, both the ISDP and the Pension Commission survey contained data for 1979 and the data from SIPP (1984) and the SCF (1983) are only one year apart.

The definitions of "net worth" differ among the data sources. Assets such as consumer durables, vehicle equity, and the cash value of life insurance are included in the estimates from some data sources, but not in the estimates from others. The Pension Commission survey included the present value of retirement assets. Unsecured debt was not deducted in the estimates from the SFCC. Because of the differences in definitions of "net worth," the estimates from these data sources presented below should be used only for rough comparisons. For the purposes of this paper, only rough comparisons are needed.

Estimates of the Age-Wealth Relationship

Eight selected estimates of relative mean net worth for age groups are shown in table 1. These estimates are from the seven different data sources described; as noted above, the definitions of "net worth" used are not strictly comparable. Also, the

wealthholding units and years are not comparable in some cases. The 55-64 age group is used as the base for these relative means. Six of the estimates are from household surveys, while the other two (Greenwood and Wolff) are "synthetic" estimates.

The estimates of relative means are not very similar. The 55-64 age group has the highest mean for three estimates (SIPP, ISDP, SFCC), although the SFCC might show a peak at an older age if more age detail were available. The two SCF estimates peak in aged age groups, while the Pension Commission estimate peaks in the 45-54 age group. The two synthetic estimates peak in the aged age group.

The ranges of relative means for specific age groups are quite broad. For the 65 and over age group, the range is from 0.73 to 1.24. The range for the 45-54 age group is from 0.68 to 1.04, and the range for the 35-44 age group is from 0.42 to 0.83. Even if the comparison is confined to SIPP, SCF, ISDP, and SFCC (data sources for which relative medians are available in table 2), differences are still substantial, although smaller. The ranges then are 0.75 to 1.24 for the 65 and over group, 0.68 to 0.96 for the 45-54 group, and 0.42 to 0.61 for the 35-44 group.

When relative medians are examined (table 2), the differences are quite a bit smaller. Those estimates are available only for SIPP, SCF, ISDP, and SFCC. In every case the peak is in the 55-64 age group. The ranges are substantially smaller than for relative means; 0.75 to 0.82 for the 65 and over group, 0.76 to 0.83 for the 45-54 group, and 0.48 to 0.58 for the 35-44 group. Except for the youngest (under 35) and oldest (75

and over) age groups, the estimates are quite similar. This correspondence is reassuring, but it is far from proof of the accuracy of the estimates. The correspondence could result from offsetting errors or differences, or these surveys could have the same biases and all be inaccurate. These comparisons do show that the estimates of the age-wealth relationship from the 1984 SIPP are at least roughly similar to the estimates from other surveys.

III. Wealth of Age Groups

In this section, median and mean net worth, medians for selected definitions of wealth; median net worth by net worth quintile, and the composition of the net worth of the middle 60 percent of the net worth distribution in each age group are examined using SIPP data for 1984. The emphasis here is on a comparison of the wealth of aged and nonaged units.

SIPP Data

One of the strengths of the SIPP data is the relatively large number of observations available for a survey that includes wealth data. The estimates shown in the remainder of this paper were made from a public use microdata file from wave 4 of the 1984 SIPP panel. These estimates are based on information for 18,701 households. Each age (of head) group shown in this paper

includes more than 1,000 observations (table 3).⁶ Thus, each quintile within an age group includes more than two hundred observations. There are more than 3,900 households with an aged head, and the 75 and over age group contains almost 1,600 observations. This survey contains enough observations to be useful for the analysis of many subgroups of the aged.

The net worth concept used in the detailed tables in this paper is defined to be wealth minus unsecured debt. Wealth consists of the following five items: (1) Equity (market value minus debt) in owner-occupied homes; (2) equity in motor vehicles; (3) equity in business, professional practice, or farm; (4) equity in rental property, vacation homes, and other real estate; and (5) financial assets.⁷ The financial assets category includes passbook savings accounts, money market deposit accounts, certificates of deposit, interest earning checking (e.g., NOW) accounts, money market funds, U.S. government securities, municipal or corporate bonds, stocks and mutual fund shares, U.S. savings bonds, IRA and Keogh accounts, regular checking accounts, mortgages held for sale of real estate, amount due from sale of business or property, other interest earning assets, and other financial assets. It should be noted that social security wealth and pension wealth are not included in wealth.

Unsecured debt includes credit card and store bills, doctor, dentist, hospital, and nursing home bills, loans from financial institutions and individuals, and educational loans. Although

the value of household durables is not included in wealth, debt incurred to purchase those items is included in unsecured debt.

It is useful to comment on the accuracy of the wealth data contained in the 1984 SIPP. Most of the information about accuracy that does exist is in the form of comparisons between SIPP aggregates and control aggregates.⁸ The Bureau of the Census has compared aggregates from the 1984 SIPP with Federal Reserve Board balance sheet data (U.S. Bureau of the Census 1986b, table D-3). They find that home equity is overstated in SIPP by 30 percent, and that vehicle equity is overstated by 43 percent. On the other hand, equity in business and rental property and financial assets are understated by about 25 percent. Unsecured debt is underestimated by about 35 percent. Although comparisons between survey wealth aggregates and wealth control aggregates are usually considered to be difficult and subject to substantial error, the pattern shown for SIPP is cause for some concern.

Item nonresponse rates are also a cause for concern. The market value of stock and mutual fund shares had a nonresponse rate of 41 percent (U.S. Bureau of the Census 1986b, table D2). The item nonresponse rate for amount in checking accounts was 13 percent. Other financial assets shown by the Bureau of the Census had item nonresponse rates between those two figures. Missing values were imputed by the Bureau of the Census. It should be noted that nonresponse rates for asset ownership (as opposed to amounts) were very low; the highest rate shown was 2.2 percent for certificates of deposit (U.S. Bureau of the Census 1986b, table D-1).

Medians, Means, and Selected Definitions of Wealth

In this section, two important points that affect the analysis of wealth are illustrated. The first point is that whether medians or means are used makes an important difference for many analyses. As noted earlier, medians are more appropriate for the type of analysis discussed in this paper. Second, the definition of wealth used also makes an important difference. Amounts of wealth and the relationship between the wealth of the aged and nonaged are affected substantially by the choice of the definition.

Because of the skewed shape of the net worth distribution within each age group, mean net worth exceeds median net worth for every age group (table 4). Median net worth is quite low (below \$10,000) for the under 35 age groups, but rises to a peak of \$72,500 in the 55-64 age group. Mean net worth is below \$10,000 only for the under 25 age group, and rises to a peak of \$115,600 in the 55-64 age group. It is clear that median and mean amounts of net worth for each age group are quite different, and that the choice between the two is important where dollar amounts are used.

The ratio of mean to median net worth ranges from 1.44 for the 75 and over age group to 3.32 for the under 25 age group. In general, there is a downward trend in that ratio as age rises. In contrast to the dollar amount differences, relative medians exceed relative means for most aged groups, although the differences are not large. Relative means are greater than

relative medians for the younger age groups. Medians are focused on in this section.

The sensitivity of the age-wealth relationship to the definition of wealth used is shown in tables 5 and 6. Table 5 shows medians and table 6 shows relative medians. For net worth, the medians for the aged groups are in a range of \$11,000, from \$54,600 for the 75 and over age group to \$65,600 for the 65-69 age group. There is a decline as age increases within the aged group. The aged medians are roughly similar to the median for the 45-54 age group, and below the median for the 55-64 group. These relationships are evident in table 6, which shows relative medians. 9 10

When vehicle equity is excluded from net worth, the median falls by relatively small amounts (by \$2,200 to \$6,000). The youngest age group now has a median of zero, and the peak is still in the 55-64 age group (\$66,600). Relative medians rise very slightly for the aged groups and fall substantially for the youngest groups.

When home equity is excluded from net worth minus vehicle equity, there is a much larger impact. However, that impact differs widely among the age groups. The youngest group shows no change and the 25-34 group shows a decline of only \$3,900. In contrast, the 55-64 group shows a fall of \$51,100. All age groups under 55 now have medians under \$10,000, while all age groups are under \$20,000. The peak is now in the 65-69 group at \$16,200. The relationship as age rises is not smooth, with an increase through the 55-64 group followed by small increases and

decreases. Relative to the median for the 55-64 age group, medians rose substantially for most aged groups, and fell substantially for the 35-54 age groups. It should be noted that mean amounts for this definition (not shown) are several times the medians. For example, the mean for the 65 and over group is \$48,700, while the median is only \$14,900.

A less comprehensive definition is financial assets minus unsecured debt. Declines in moving to that definition from net worth excluding vehicle and home equity range from zero for the youngest groups to \$7,500 for the 55-64 group. All nonaged groups now have medians under \$10,000, and the highest median for any age group is only \$12,000 (for age 65-69). There is a smooth rise in medians until the peak, then a smooth decline. Relative to the median for the 55-64 age group, medians rose substantially for the aged groups and fell for the 35-54 age groups. Mean amounts are still several times the medians, with the mean for the 65 and over group (\$36,300) about 3 1/2 times the median for that group.

Two definitions in which unsecured debt is not subtracted are now examined. The wealth medians are slightly above the net worth medians, with the differences ranging from less than \$100 to \$4,300. The relative values for wealth are very similar to those for net worth. The financial asset medians are slightly above the financial asset minus debt medians, with the aged groups showing small differences. The peak is still in the 65-69 age group. Relative medians differ from those for financial assets minus debt. When only financial assets are considered,

the relative medians are substantially higher for the under 55 groups and lower for the aged groups. For example, the relative median for the 65 and over group falls from 1.31 to 1.09.

In summary, medians for the aged relative to medians for nonaged groups rose slightly when vehicle equity was omitted from net worth and rose more sharply when home equity was also omitted. When the definition was changed to financial assets minus debt, medians for the aged rose very sharply relative to medians for the nonaged. Relative medians for all age groups are similar for wealth and net worth. Relative medians for the aged are relatively lower for financial assets than for financial assets minus debt. It can be seen from tables 5 and 6 that the choice of a definition of wealth can make an important difference in comparisons of the aged and nonaged.

Median Net Worth by Net Worth Quintile

Median net worth by age and net worth quintile (within age group) is shown in table 7. Median net worth is very low in the bottom quintile for all age groups, ranging from minus \$1,300 in the under 25 group to \$2,400 in the 55-64 group. In the second quintile, the median for each age group is below \$36,000. In every age group, the median for the second quintile is less than one half the overall median for the age group. In contrast, the top quintile shows medians above \$150,000 for all age groups 35 and over.

Within each quintile the age pattern is roughly similar--low amounts at the young ages, a peak in the 55-64 group, and declines among the aged groups. It is interesting to note that, for each of the top four quintiles, median net worth declines within the aged group as age rises. The decline between the 65-69 and 75 and over age groups is 26 percent for the second quintile, 17 percent for the third quintile, 15 percent for the fourth quintile, and 18 percent for the top quintile.

The medians for all groups under age 55 rise relative to the median for the aged as net worth increases. For example, the median for the 35-44 age group rises from zero in the bottom quintile to 76 percent of the median for the aged in the top quintile, and the median for the 45-54 age group rises from 68 percent of the median for the aged in the lowest quintile to 102 percent in the top quintile.

Wealth of the Middle 60 Percent of Households

In this section, the asset types held, the mean amounts of those assets, and the percentage composition of net worth are examined for the middle 60 percent of the net worth distribution of each age group. Households in the top and bottom net worth quintiles are excluded because the focus here is on "typical" households in each age group (that is, households that do not have extreme amounts of net worth). Estimates of amounts for the age group as a whole can be affected by a few very high amounts and by negative amounts.

The percentage of households holding various components of net worth is shown in table 8. Home equity is held by 84 percent of the aged group, with the percentage ranging from 89 percent for the 65-69 group to 81 percent for the 75 and over group. The 45-64 groups have the highest percentages (90-91 percent), while only 10 percent of the under 25 group and 42 percent of the 25-34 group have home equity. The percentages with home equity for the middle 60 percent are above the percentages for the entire age group (not shown) for all age groups 35 and over. For example, the entire 65 and over group shows 73 percent with home equity, compared to 84 percent for the middle 60 percent.

The percentage with vehicle equity is high (at least 82 percent) except for the 75 and over group (63 percent). The percentage with business equity is very low among the aged and reaches a peak of only 11 percent in the 45-54 age group. Real estate reaches a peak of 22 percent in the 55-64 age group, and is somewhat lower among the aged (10-16 percent). The percentage with unsecured debt is highest in the 25-54 age groups (78-81) and falls to 38 percent in the 65 and over group.

Financial assets are held by more than 90 percent of all groups age 35 and over. The percentages of the middle 60 percent holding selected components of financial assets are shown in table 9. Savings accounts are held by roughly two thirds of all households, with relatively little variation among age groups. Money market accounts are more prevalent among the aged (23 percent) than among the nonaged, as are certificates of deposit (38 percent for the aged). Interest earning checking accounts

show less variation among age groups, with the aged showing a slightly higher percentage (29 percent) than the nonaged. Stocks and mutual funds are most prevalent in the 35-64 age groups (21-22 percent), but the aged percentage is not much lower (17 percent). U.S. savings bonds are also most prevalent in the 35-64 age groups (19-20 percent); twelve percent of the aged hold such bonds. The 55-64 age group shows the highest percentage with an IRA (40 percent), while only 6 percent of the aged have an IRA.

Mean amounts of the various asset types are shown for the middle 60 percent in table 10. These means are for all households in the middle 60 percent of the age group, not just for those with the specific asset type. For each age group, mean amounts of vehicle equity, business equity, and real estate are all quite low--below \$7,000. The sum of these three asset types minus unsecured debt is below \$11,000 for each age group. Thus, in an absolute sense, these asset types are not very important for the middle 60 percent. However, it should be noted that vehicle equity is relatively important for the under 35 age groups.

The relative importance of each asset type for each age group can be seen in table 11. Home equity is at least 55 percent of net worth for each age group 35 and over. The percentage declines from a peak of 67 percent in the 35-44 age group as age rises. Home equity plus financial assets constitutes at least 84 percent of net worth for each age group 35 and over. The percentage accounted for by financial assets is

highest in the 75 and over age group (37 percent). The percentage is lowest in the 35-44 age group (17 percent). Home equity is roughly four times as important as financial assets for the 35-54 age groups, but is less than twice as important for the aged. These percentages are quite different when the entire age group (not just the middle 60 percent) is used. For the aged, home equity (42 percent) and financial assets (41 percent) are of about equal importance in that case.

In summary, home equity and financial assets dominate the net worth of the middle 60 percent of aged households. Although vehicle equity is held by about three fourths of aged households, the mean amount is small. Vehicle equity and unsecured debt are relatively more important for the nonaged than for the aged.

IV. Wealth of Age and Income Groups

In assessing the economic well-being of households, the relationship between income and wealth is very important. Both income and wealth should be taken into account when economic well-being is examined. In most cases, income is used alone as the classifier for assessing economic status.

Several different methods of using income and wealth data together have been used by researchers. Perhaps the most widely used type of method converts the stock of wealth into a flow and adds that flow to the flow of income. In that method, wealth is converted into an annuity for the expected remaining life of the

unit (e.g., Murray 1964, Weisbrod and Hansen 1968, Taussig 1973, Wolfson 1979). Moon (1977) has applied this method to the aged. In a variant of the simple annuity approach, the annuity allows the unit to reach the same utility level as its optimal consumption path, rather than the highest constant consumption path (Nordhaus 1973, Irvine 1980, Beach 1981).

Comparing different age groups using the annuity approach has been criticized on the grounds that the method does not take into account the likelihood that the incomes of young units will rise and that those units ordinarily will be able to increase their wealth as they age (Projector and Weiss 1969). Some researchers have tried to take this into account essentially by estimating future earnings (Nordhaus 1973, Taussig 1973, Irvine 1980).

Some researchers have combined income and wealth by converting income flows into stocks of wealth and adding that wealth to other types of wealth. For example, in looking at the aged, Hurd and Shoven (1982) capitalized several sources of income and added those values to estimates of wealth. Also, for limited purposes some researchers have taken a simpler approach to combining income and wealth and summed current income and liquid assets (David 1959, Steuerle and McClung 1977), or income and net worth (Steuerle and McClung 1977).

Radner and Vaughan (1984, 1987) and Radner (1984), in looking at a short time horizon, did not combine income and wealth. They considered income and wealth jointly as a two-dimensional classification and examined such characteristics of

the joint distribution as the percentage of each age group that had relatively low wealth and relatively low income.

In this section the amounts of wealth held by different relative income groups within age groups are examined. It should be noted that this is a purely descriptive exercise. Double counting of income and assets is not a concern here; such concerns are important in an analytical use of the data. Thus, income includes asset income and wealth includes income-producing assets in the estimates shown here.

The income classifications used require some explanation. The income definition is total household money income for the four-month period preceding the interview. (In some of the estimates, this four-month income is "annualized" by multiplying it by three.) The income amounts are adjusted for household size using an equivalence scale based on the scale implicit in the U.S. poverty thresholds.¹¹ Then, within each age group, households are separated into quintile groups based on the size of their adjusted total money income. There is a presumption that, within each age group; households in higher income quintiles are "better off" than those in lower quintiles. The wealth of households in these different income quintiles is examined. Although all age groups are examined, there is more emphasis on the aged than the nonaged.

Median Amounts

Table 12 shows median net worth by adjusted income quintile and age. Median net worth is low for the bottom income quintile for each age group. The peak (\$20,000) occurs in the 55-64 age group. For the under 35 age groups, median net worth is low for all income groups. The second and third income quintiles also show peaks in the 55-64 age group, but the 70-74 age group has the highest median in the fourth income quintile and the 65-69 age group has the highest median in the top quintile. This table shows that aged households with low income typically do not have large amounts of net worth. In the bottom two quintiles, each aged group has median net worth of less than \$44,000, and in the bottom quintile the median is less than \$17,000.

Table 13 shows median financial assets by adjusted income quintile and age. Of course, these medians would be expected to be far below the medians shown in table 12, primarily because home equity is excluded here, and that is the case. In the bottom income quintile, median financial assets is below \$1,000 in every age group. The second quintile shows a peak of \$5,600, and the highest median in the third quintile is \$15,000. It is only the aged in the fourth quintile and age groups 45 and over in the top quintile that show medians of over \$20,000. In the top four income quintiles, the aged have high medians compared to most nonaged groups.

Wealth of Aged Households

The economic status of the aged is of particular interest. Tables 14-16 show the composition of the wealth of the age 65 and over group by adjusted income quintile. In table 14, the majority of each income quintile has home equity, with a peak of 85 percent in the top quintile. There is a substantial rise in the percentage as income rises. The percentage with vehicle equity also rises sharply as income rises; only 41 percent of the bottom quintile has that asset. Business equity is held by less than 10 percent in each quintile. The percentage with real estate also shows a strong rise as income increases, with a peak of 30 percent in the top quintile. The percentage with unsecured debt shows a relatively small increase as income rises; with a range from 32 to 45 percent.

The percentage with financial assets exhibits a strong increase as income rises, with most of the increase occurring between the first and third quintiles. Table 15 shows the percentage of aged households holding selected financial assets. The percentage holding each of these assets rises sharply as income rises. Savings accounts are held by 39 percent of the bottom quintile and 76 percent of the top quintile. Savings accounts are the only financial asset shown here that is held by a substantial proportion of the bottom income quintile. The percentages held by the bottom and top quintiles respectively are 6 and 47 for money market accounts, 12 and 55 for certificates of deposit, 10 and 53 for interest earning checking accounts, 2 and

51 for stocks and mutual funds, 2 and 21 for U.S. savings bonds, and 1 and 21 for IRA's. The second income quintile holds primarily savings accounts and certificates of deposit. U.S. savings bonds and IRA's are not very prevalent, even among households in the top income quintile.

Table 16 shows the composition of net worth.¹² This table is affected to a degree by problems in estimating the upper tail. Home equity accounts for more than half of net worth for each of the bottom three income quintiles. Home equity is also the most important component for the fourth quintile, but financial assets are the most important in the top quintile. For the aged group as a whole, home equity and financial assets are about equally important because of the dominance of the top quintile. Vehicle equity, business equity, and unsecured debt are not very important in any quintile. Real estate is slightly more important at higher income levels than at lower levels.

Ratio of Wealth to Income

Another way of examining the importance of wealth is to look at the ratio of wealth to income. Table 17 shows the ratio of median financial assets to median annualized income by age and adjusted income quintile. All quintiles in all nonaged groups show median financial assets less than median annualized income. For the youngest age groups the ratios are quite small; the ratios are below 0.25 in all quintiles under age 45. The ratios exceed 1.00 for the higher income aged groups. However, the

bottom quintile for each aged group shows a low ratio, and the ratios for the second quintile are only in the 0.37 - 0.53 range. The top quintile in the aged groups has ratios in the 1.79 - 2.19 range.

A second way of examining the age-wealth-income relationship is by looking at the distribution of households by their ratio of wealth to income. Here the ratio of financial assets to income is used. Those distributions by age are shown in table 18. Only 2 percent of the youngest age group had financial assets exceeding annualized income, and only 5 percent had financial assets that were more than one half of income. For that age group, 26 percent had no financial assets and 55 percent had a positive ratio less than 0.10. The percentages for the aged are quite different than for the young, but do not differ much within the aged group. For that group as a whole, 25 percent had ratios under 0.10 (including zero) and 48 percent had ratios of at least 1.00. One third of the group had ratios of 2.00 or more.

Table 19 shows the estimates for the 65 and over group by adjusted income quintile. Not surprisingly, the percentages differ greatly by income quintile. For the bottom quintile, 53 percent had either zero financial assets or a positive ratio under 0.10. That percentage falls sharply to 7 percent in the top quintile. Only 22 percent of the bottom quintile had a ratio of at least 1.00, but 70 percent of the top income quintile had a ratio of at least 1.00.

Low Income and Low Wealth

Another way of taking account of both income and wealth is to examine a portion of their joint distribution. In particular, the portion of the joint distribution that includes relatively low income and relatively low wealth is considered here. Two different definitions of wealth, net worth and financial assets, are used and the results for the two are compared. Relatively low income is defined as being in the bottom income quintile of the all ages distribution, after adjustment for size of unit. Relatively low net worth (financial assets) is defined as being in the bottom two net worth (financial asset) quintiles of the all ages distribution, after adjustment for size of unit.

The bottom two quintiles are used for net worth and financial assets because those distributions are so skewed. The bottom quintile contains very small amounts, and the amounts in the second quintile are still not very large. In terms of amounts adjusted for size of unit, the upper bound of the bottom net worth quintile is only \$1,423 and the upper bound of the second net worth quintile is \$11,760.¹³ The corresponding bounds for financial assets are \$50 and \$753, respectively. It can be seen that these are not very large amounts. The upper bound of the bottom quintile of annualized income (adjusted for size of unit) is \$7,212.

The percentage of households in each age group with low income and low wealth is shown in table 20. For all ages, 13.2 percent of households had low income and low net worth. In

general, the pattern is high percentages at young and old ages, with lower percentages at ages in between.¹⁴ The percentages range from a low of 8.4 percent for the 55-64 age group to 24.6 percent for the under 25 age group. Aged households show 13.3 percent, with a range from 10.2 percent for the youngest aged (aged 65-69) to 15.3 percent for the oldest aged (aged 75 and older).

The percentages for aged households show that, despite high median net worth compared to most other age groups, a relatively high percentage of aged households has low income and low net worth. This relatively high percentage results primarily from the high percentage of aged households in the bottom income quintile (table 20). For the aged, 28.0 percent were in the bottom income quintile, but only 48 percent ($13.3/28.0$) of those were also in the bottom two net worth quintiles. In contrast, 94 percent of households in the youngest age group in the bottom income quintile were also in the bottom two net worth quintiles.

The results for low income and low financial assets show a less pronounced relationship to age, although the general pattern is similar. The percentage for all ages is slightly higher than for net worth (14.6 percent). The range for financial assets is smaller, from 11.2 percent for the 45-54 age group to 23.4 percent for the under 25 age group. Aged households show 14.9 percent with low income and low financial assets, which is slightly above the percentage found when net worth was used. Thus, in the bottom income quintile, the proportion of aged households with low financial assets (53 percent) is slightly

higher than the proportion with low net worth. Aged households have higher median financial assets than net worth relative to other age groups. Despite this, the percentage of aged households with low income and low financial assets is higher than for most other age groups.

This examination of a portion of the joint distribution of income and wealth has shown that, despite the relatively high median amounts of wealth held by the aged, the proportion of aged households with both low income and low wealth is not relatively low. The relatively high percentage of aged households in the bottom income quintile is an important factor here.

V. Summary and Conclusions

This paper reflects a somewhat different perspective on the use of wealth data. The emphasis is on analyzing the economic status of ordinary (nonrich) units. Also, there is a particular interest in age groups, with the emphasis on the aged. Selected estimates of wealth for 1984 from SIPP are presented. These estimates are illustrations of several types of useful wealth estimates that can be made from household survey data.

Types of wealth estimates are discussed and the characteristics of wealth data that are important for the analysis of economic status are examined. Estimates of the age-wealth cross-section relationship are compared for five household surveys and two synthetic estimates. These estimates differ in

definition of wealth, wealthholding unit, and time period.

Although relative mean amounts from the different data sources differ widely, relative medians are quite similar. Estimates of relative medians from the 1984 SIPP are similar to those from the other data sources examined.

Estimates of net worth from the 1984 SIPP show that the mean far exceeds the median in each age group. When home equity and vehicle equity are excluded from net worth, all age groups show medians of under \$17,000, with the peak in the 65-69 age group. Medians for financial assets minus debt also peak in the 65-69 age group (\$12,000). When net worth quintiles within age groups are examined, median net worth is very low in the bottom quintile in each age group.

An examination of the middle 60 percent of the net worth distribution in each age group shows that, except for the under 25 group, home equity is by far the most important asset for each age group. Home equity accounts for 57 percent of the net worth of the aged, while financial assets account for 34 percent.

When wealth is examined for income quintiles (based on income adjusted for household size) within age groups, median net worth is low for the bottom income quintile for each age group. Median financial assets is low for the bottom three quintiles in every age group. For the bottom income quintile in the aged group, home equity constitutes 72 percent of net worth and financial assets account for 15 percent. For the top income quintile of the aged group, home equity accounts for only 30

percent, while financial assets account for 51 percent of net worth.

Ratios of median financial assets to median annualized income are below 1.00 for all income quintiles in each nonaged group. The ratio exceeds 1.00 for higher income aged households. More than 80 percent of households in the under 25 age group have financial assets that are less than 10 percent of their annualized income. For the aged, the corresponding figure is 25 percent. For the aged, that percentage ranges from 53 percent for the bottom income quintile to only 7 percent in the top income quintile.

When the percentage of households in each age group with relatively low income and relatively low wealth is examined, a pattern of high percentages at young and old ages, with lower percentages at ages in between, is found. Aged households show 13.3 percent with low income and low wealth, which is about equal to the percentage for all households and is greater than the percentage for most nonaged age groups. When financial assets is used instead of net worth, the results are similar.

Thus, data on wealth from the 1984 SIPP show that many aged households have little wealth to use in emergencies. This is similar to findings from the 1979 ISDP and from other data sources. Of course, many nonaged households also have little wealth, especially among the young.

Wealth data from household surveys were the most appropriate for the analysis in this paper. Although wealth data from a household survey can be very useful for many purposes, such data

still have many problems, such as high nonresponse rates and substantial response error. Much further research on the estimation of the distribution of wealth using survey data and other methods is needed.

Table 1.--Selected estimates of relative mean net worth by age a

Age of Head	SIPP 1984	1983 SCP		ISDP 1979	SFCC 1962	Pension Commission		Wolff 1969
		Excluding high frame	Including high frame			1979	1973	
Under 35.....	.17	-	.13	-	.19	.33	-	-
Under 25.....	-	.04	-	.08	-	-	.20	.28
25-34.....	-	.17	-	.23	-	-	.50	.43
35-44.....	.53	.43	.42	.61	.49	.83	.76	.58
45-54.....	.88	.68	.96	.75	.69	1.04	.91	.76
55-64.....	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
65 and over.....	.80	-	1.24	.75	.95	.73	1.06	1.02
65-74.....	-	1.05	-	-	-	-	-	-
65-69.....	.96	-	-	.85	-	-	-	-
70-74.....	.79	-	-	.81	-	-	-	-
75 and over.....	.69	.61	-	.62	-	-	-	-
All ages.....	.60	.55	.66	.59	.65	.63	.78	.72
Mean, all ages (thousands of current dollars).....	78.7	66.0	133.5	62.4	21.0	54.0	37.7	46.0

a/ Net worth is defined differently in many of these estimates; see the text for details. Age 55-64 is used as the base for the relative means.

Table 1 - Sources

SIPP: U.S. Bureau of the Census 1986b, table 3

SCF: excluding high frame: Avery et al. 1984b, table 7
including high frame: Avery et al. 1986, table 2

ISDP: Radner and Vaughan 1984, table 2

SFCC: Projector and Weiss 1966, table A8

Pension Commission: Cartwright and Friedland 1985, table 2

Greenwood: Greenwood 1987, table 2

Wolff: Wolff 1983, table 5

Table 2.--Selected estimates of relative median net worth by age ^a

Age of Head	SIPP 1984	1983 SCF		ISDP 1979	SFCC 1962
		Excluding high frame	Including high frame		
Under 35.....	.08	-	.05	-	.08
Under 25.....	-	0	-	.07	-
25-34.....	-	.07	-	.24	-
35-44.....	.48	.52	.58	.58	.53
45-54.....	.77	.79	.79	.76	.83
55-64.....	1.00	1.00	1.00	1.00	1.00
65 and over.....	.82	-	.80	.75	.77
65-74.....	-	.90	-	-	-
65-69.....	.90	-	-	.92	-
70-74.....	.82	-	-	.88	-
75 and over.....	.75	.65	-	.55	-
All ages.....	.44	.44	.47	.50	.51
Median, all ages (thousands of current dollars)..<	32.7	24.6	30.6	25.8	6.7

^{a/} Net worth is defined differently in many of these estimates; see the text for details. Age 55-64 is used as the base for the relative medians.

Table 2 - Sources

SIPP: U.S. Bureau of the Census 1986b, table 5

SCF: excluding high frame: Avery et al. 1984b, table 7
including high frame: Avery et al. 1986, table 2

ISDP: Radner and Vaughan 1984, table 2

SFCC: Projector and Weiss 1966, table 8

Table 3.--Sample size and weighted number of households by age, 1984

Age of Head	Number of observations	Millions of households
Under 25.....	1,342	5.7
25-34.....	4,161	20.1
35-44.....	3,592	17.4
45-54.....	2,885	12.6
55-64.....	2,787	12.9
65 and over.....	3,934	18.2
65-74.....	2,336	10.7
65-69.....	1,251	5.7
70-74.....	1,085	5.0
75 and over.....	1,598	7.5
All ages.....	18,701	86.9

Table 4.--Median and mean net worth by age, 1984

Age of Head	Thousands of dollars		Relative values	
	Median	Mean	Median	Mean
Under 25.....	2.2	7.2	.03	.06
25-34.....	8.1	24.8	.11	.21
35-44.....	35.5	62.4	.49	.54
45-54.....	56.4	98.7	.78	.85
55-64.....	72.5	115.6	1.00	1.00
65 and over.....	59.5	90.8	.82	.79
65-74.....	62.0	99.4	.86	.86
65-69.....	65.6	107.2	.90	.93
70-74.....	59.5	90.6	.82	.78
75 and over.....	54.6	78.4	.75	.68
All ages.....	32.5	69.2	.45	.60

Table 5.--Median amounts, 1984 a

(thousands of dollars)

Age of head	Definition of wealth				
	Net Worth excluding vehicle equity	Net Worth excluding vehicle and home equity	Financial assets minus debt	Wealth	Financial assets
Under 25.....	2.2	0	0	3.4	0.3
25-34.....	8.1	3.9	0	10.2	0.8
35-44.....	35.5	30.7	0.4	38.4	2.2
45-54.....	56.4	50.4	1.8	60.7	4.1
55-64.....	72.5	66.6	8.0	73.9	10.0
65 and over.....	59.5	55.8	10.5	60.0	10.9
65-74.....	62.0	59.3	11.0	62.5	11.7
65-69.....	65.6	61.4	12.0	66.2	13.0
70-74.....	59.5	55.6	10.5	60.0	10.7
75 and over....	54.6	51.3	10.0	54.6	10.1
All ages.....	32.5	28.4	1.1	35.0	2.6

a/ Medians are for everyone in the age group.

Table 6.--Relative medians for alternative definitions of wealth, by age, 1984 a

Age of Head	Net Worth	Net worth excluding vehicle equity	Net worth excluding vehicle and home equity	Financial assets minus debt	Wealth	Financial assets
Under 25.....	.03	0	0	0	.05	.03
25-34.....	.11	.06	0	0	.14	.08
35-44.....	.49	.46	.12	.06	.52	.22
45-54.....	.78	.76	.37	.23	.82	.41
55-64.....	1.00	1.00	1.00	1.00	1.00	1.00
65 and over.....	.82	.84	.96	1.31	.81	1.09
65-74.....	.86	.89	.97	1.38	.85	1.17
65-69.....	.90	.92	1.05	1.50	.90	1.30
70-74.....	.82	.83	.86	1.31	.81	1.07
75 and over.....	.75	.77	.93	1.25	.74	1.01
All ages.....	.45	.43	.17	.14	.47	.26

a/ Age 55-64 is used as the base.

Table 7.--Median net worth by age and net worth quintile, 1984 .

(thousands of dollars)					
Quintiles ^a					
Age of Head	1	2	3	4	5
Under 25.....	-1.3	.2	2.2	5.6	18.1
25-34.....	-0.6	1.7	8.1	23.1	65.6
35-44.....	0	11.3	35.5	66.6	152.1
45-54.....	0.5	23.3	56.4	97.8	205.3
55-64.....	2.4	35.3	72.4	118.9	245.4
65 and over.....	0.8	26.7	59.5	99.3	200.1
65-74.....	0.8	29.0	62.0	103.8	209.6
65-69.....	1.1	32.6	65.6	108.7	219.7
70-74.....	0.5	24.4	59.4	96.5	197.6
75 and over.....	0.7	24.0	54.6	92.5	181.1
All ages.....	0	7.5	32.5	71.7	166.9

^{a/} Defined within each age group.

Table 8.--Percentage holding specific asset types, households with medium net worth, by age, 1984 a

Age of Head	Type of asset or debt				
	Home equity	Vehicle equity	Financial assets	Business equity	Real estate
Under 25.....	10	82	72	2	1
25-34.....	42	96	85	6	6
35-44.....	79	96	92	10	14
45-54.....	90	98	93	11	20
55-64.....	91	94	93	9	22
65 and over.....	84	76	93	3	12
65-74.....	87	86	92	3	14
65-69.....	89	88	92	3	16
70-74.....	84	82	93	4	12
75 and over....	81	63	94	1	10
All ages.....	71	91	90	8	12
					69

a/ Medium net worth is defined as the middle 60 percent of the net worth distribution in each age group.

Table 9.---Percentage holding selected financial assets, households with medium net worth, by age, 1984 a

Age of Head	Type of asset					
	Savings accounts	Money market accounts	Certificates of deposit	NOW accounts ^b	Stocks or mutual funds	U.S. savings bonds IRA
Under 25.....	52	2	2	14	4	9 2
25-34.....	63	6	7	21	13	13 10
35-44.....	71	11	12	23	21	19 18
45-54.....	72	13	18	23	21	19 29
55-64.....	71	21	30	27	22	20 40
65 and over.....	67	23	38	29	17	12 6
65-74.....	67	25	39	29	17	14 8
65-69.....	67	26	37	30	19	15 12
70-74.....	67	23	40	28	17	13 4
75 and over....	66	21	39	29	18	10 3
All ages.....	67	12	17	23	17	16 16

a/ Medium net worth is defined as the middle 60 percent of the net worth distribution in each age group.

b/ Includes all interest-bearing checking accounts.

Table 10.--Mean amounts of specific asset types, households with medium net worth, by age, 1984 a
(thousands of dollars)

Age of Head	Type of asset or debt						Unsecured debt
	Net worth	Home equity	Vehicle equity	Financial assets	Business equity	Real estate	
Under 25.....	2.8	0.4	2.4	0.9	0	0	0.9
25-34.....	11.5	5.9	3.8	2.8	0.4	0.6	1.9
35-44.....	38.7	25.9	5.0	6.5	1.2	2.6	2.6
45-54.....	60.2	39.7	6.3	11.1	2.0	4.6	3.4
55-64.....	76.3	46.2	5.8	19.4	1.5	5.5	2.1
65 and over.....	62.3	35.2	3.2	20.9	0.4	3.1	0.5
65-74.....	65.7	37.9	4.0	20.8	0.5	3.3	0.7
65-69.....	70.2	40.3	4.5	21.7	0.8	4.0	1.0
70-74.....	61.0	34.8	3.6	20.0	0.4	2.8	0.5
75 and over....	57.5	31.5	1.9	21.5	0.2	2.7	0.3
All ages.....	38.3	23.9	4.5	8.7	1.0	2.3	2.1

a/ Medium net worth is defined as the middle 60 percent of the net worth distribution in each age group.
Mean amounts are for all households in the group, not just for those holding the asset.

Table 11.--Percentage composition of net worth, households with medium net worth, by age, 1984 a

Age of Head	Net Worth	Type of asset or debt					Unsecured debt
		Home equity	Vehicle equity	Financial assets	Business equity	Real estate	
Under 25.....	100	14	84	31	1	1	32
25-34.....	100	52	33	24	3	5	17
35-44.....	100	67	13	17	3	7	7
45-54.....	100	66	10	18	3	8	6
55-64.....	100	61	8	25	2	7	3
65 and over.....	100	57	5	34	1	5	1
65-74.....	100	58	6	32	1	5	1
65-69.....	100	57	6	31	1	6	1
70-74.....	100	57	6	33	1	5	1
75 and over....	100	55	3	37	0	5	1
All ages.....	100	62	12	23	3	6	5

a/ Medium net worth is defined as the middle 60 percent of the net worth distribution in each age group.

Table 12.--Median net worth by adjusted income quintile and age, 1984 ^a
(thousands of dollars)

Age of Head	Quintile				
	1	2	3	4	5
Under 25.....	0	1.3	2.5	3.8	4.8
25-34.....	0.6	5.3	8.8	12.5	25.4
35-44.....	5.0	24.1	37.9	45.2	78.5
45-54.....	7.9	38.8	58.0	71.9	115.0
55-64.....	20.0	54.1	67.0	89.1	163.7
65 and over.....	13.4	31.2	61.2	82.5	153.4
65-74.....	8.7	40.6	63.9	85.5	163.8
65-69.....	13.0	43.7	65.5	89.5	178.1
70-74.....	6.9	35.0	57.5	90.3	142.2
75 and over.....	16.7	25.2	56.6	79.0	143.5
All ages.....	3.3	20.9	33.2	47.8	87.8

^{a/} Income quintiles are based on income adjusted for household size and are defined within age groups.

Table 13.--Median financial assets by adjusted income quintile and age, 1984 ^a
(thousands of dollars)

Age of Head	Income Quintile				
	1	2	3	4	5
Under 25.....	0	.1	.3	.6	1.4
25-34.....	0	.3	.8	1.7	5.2
35-44.....	.1	.8	2.1	4.3	12.8
45-54.....	0	1.7	3.9	7.4	24.5
55-64.....	.1	4.0	10.0	18.2	46.5
65 and over.....	.4	3.2	15.0	24.2	63.3
65-74.....	.1	4.0	12.4	25.5	63.9
65-69.....	.2	5.6	10.2	31.0	68.0
70-74.....	.1	3.0	12.5	26.0	60.7
75 and over.....	.6	2.7	13.0	30.0	62.7
All ages.....	0	1.0	2.5	4.8	16.8

^{a/} Income quintiles are based on income adjusted for household size and are defined within age groups.

Table 14.---Percentage holding specific asset types, by adjusted income quintile, age 65 and over, 1984 a

Income Quintile	Type of asset or debt				
	Home equity	Vehicle equity	Financial assets	Business equity	Real estate Unsecured debt
1.....	56	41	65	2	7 32
2.....	64	56	84	2	9 34
3.....	76	79	94	3	16 38
4.....	82	88	97	4	20 45
5.....	85	93	99	8	30 45
Total.....	73	71	88	4	16 39

a/ Income quintiles are based on income adjusted for household size and are defined within the age group.

Table 15.—Percentage holding selected financial assets, by adjusted income quintile, age 65 and over, 1984 a

Income Quintile	Type of financial asset					
	Savings accounts	Money market accounts	Certificates of deposit	NOW accounts ^b	Stocks or mutual funds	U.S. savings bonds IRA
1.....	39	6	12	10	2	2 1
2.....	54	12	28	19	9	6 3
3.....	68	23	42	30	17	12 5
4.....	74	32	44	38	25	16 10
5.....	76	47	55	53	51	21 21
Total.....	63	24	36	30	21	11 8

a/ Income quintiles are based on income adjusted for household size and are defined within the age group.

b/ Includes all interest-bearing checking accounts.

Table 17.--Ratio of median financial assets to median annualized income, by adjusted income quintile and age, 1984 ^a

Age of Head	Quintile					Total
	1	2	3	4	5	
Under 25.....	0	.01	.02	.03	.04	.02
25-34.....	0	.02	.04	.06	.12	.04
35-44.....	.01	.04	.07	.11	.23	.08
45-54.....	0	.08	.13	.18	.39	.13
55-64.....	.02	.28	.43	.54	.79	.42
65 and over.....	.08	.41	1.22	1.32	1.90	.87
65-74.....	.02	.43	.89	1.28	1.79	.82
65-69.....	.03	.53	.66	1.38	1.79	.82
70-74.....	.02	.37	1.01	1.48	1.89	.86
75 and over.....	.13	.42	1.30	1.99	2.19	.99
All ages.....	0	.07	.12	.16	.33	.12

^{a/} Income quintiles are based on income adjusted for household size and are defined within age groups.

Table 18.--Percentage distribution of households by the ratio of financial assets to annualized income, by age, 1984

Age of head	Zero financial assets	Ratio						Total a/
		Under 0.1	0.1-0.3	0.3-0.5	0.5-1.0	1.0-2.0	2.0 and over	
Under 25.....	26	55	11	3	3	1	1	99
25-34.....	19	48	18	6	4	2	2	99
35-44.....	13	41	19	8	9	5	3	100
45-54.....	13	32	19	9	12	7	6	100
55-64.....	12	21	13	10	14	13	17	100
65 and over..	12	13	10	6	10	15	33	100
65-74.....	13	14	10	7	11	16	30	100
65-69.....	12	14	10	7	11	18	28	100
70-74.....	14	14	9	6	10	14	32	100
75 and over	11	12	10	6	10	14	37	100
All ages.....	15	34	16	7	9	8	11	100

a/ A few households with zero or negative income are not shown.

Table 19.---Percentage distribution of households by the ratio of financial assets to annualized income, by adjusted income quintile, age 65 and over, 1984 a

Quintile	Zero financial assets	Ratio					Total b/
		Under 0.1	0.1-0.3	0.3-0.5	0.5-1.0	1.0-2.0	
1.....	35	18	12	6	6	9	99
2.....	16	17	11	7	11	12	100
3.....	6	13	10	7	10	16	100
4.....	3	11	10	7	14	17	100
5.....	1	6	7	6	11	23	100
							60

a/ Income quintiles are based on income adjusted for household size and are defined within the age group.

b/ A few households with zero or negative income are not shown.

Table 20.--Percentage of households with low income and low wealth, by age of head, 1984

<u>Age of unit head</u>	<u>With low income and low net worth^a</u>	<u>With low income and low financial assets^b</u>	<u>In bottom income quintile</u>
Under 25	24.6	23.4	26.3
25-34	16.8	16.9	19.1
35-44	11.8	13.5	16.8
45-54	9.2	11.2	14.3
55-64	8.4	11.9	17.3
65 and older	13.3	14.9	28.0
65-74	12.0	14.1	23.1
65-69	10.2	12.0	19.1
70-74	14.0	16.5	27.7
75 and older	15.3	15.9	35.0
All ages	13.2	14.6	20.0

a/ Low income is defined as the bottom income quintile for all ages and low net worth is defined as the bottom two net worth quintiles for all ages, in both cases after adjustment for size of unit.

b/ Low income is defined as the bottom income quintile for all ages and low financial assets is defined as the bottom two financial asset quintiles for all ages, in both cases after adjustment for size of unit.

FOOTNOTES

*An earlier version of this paper was presented at the NBER Conference on Income and Wealth, Conference on the Measurement of Saving, Investment, and Wealth, Baltimore, Maryland, March 27-28, 1987. The author is greatly indebted to Sharon Johnson, who prepared the estimates, and to Benjamin Bridges and Selig Lesnoy for their helpful comments. Any opinions expressed are those of the author and do not necessarily represent the position of the Social Security Administration.

1. For a recent discussion of types of wealth estimates and data on wealth, see Smith (1987).

2. For discussions of the accuracy of survey data on wealth, see, for example, Ferber (1966) and Ferber et al. (1969).

3. For example, estimates of the change in inequality presented in a Joint Economic Committee report (1986) were questioned because of doubts about the accuracy of one high-wealth observation.

4. In public use household survey microdata files (such as used in this paper), amounts are often topcoded to prevent disclosure. Also, the amounts are restricted by the size of amounts that could be coded in the survey. Such problems are far less important if the upper tail of the distribution is excluded from the analysis.

5. This was wave 4 of the 1984 panel in this multi-wave survey; see U.S. Bureau of the Census (1986b) for detailed information about the organization of the survey.

6. The age of the household reference person is used. For convenience, in this paper that person is referred to as the head.

7. In addition to this technical definition of wealth, at times the term wealth is used in this paper in a broad sense (e.g., when data requirements for the analysis of wealth are discussed).

8. Another paper in this volume compares distributional estimates from the 1984 SIPP with those from the 1983 SCF and the 1984 Panel Study of Income Dynamics; see "Survey Estimates of Wealth: An Assessment of Quality" by Richard T. Curtin, F. Thomas Juster, and James N. Morgan.

9. The inclusion of other asset types in net worth also can affect the age-wealth relationship. The 1979 ISDP contained an estimate of the value of consumer durables. Unpublished tabulations from that file showed that moving from a definition of net worth that excluded consumer durables to one that included consumer durables produced small increases in the relative

medians for age groups under age 45 and a small decrease in the relative median for the 65-74 age group.

10. In a recent paper, Wolff (1987) examined mean wealth by age group for alternative broad definitions of wealth. The most comprehensive definition included pension and social security wealth and human capital.

11. The scale is derived from the 1984 weighted thresholds (U.S. Bureau of the Census 1986a, table A-2). A one-person household (all ages) is used as the base. Each household's income (or, in one estimate, wealth) is divided by the appropriate scale value to obtain adjusted income. The scale values used are: one person (under age 65) 1.023; one person (age 65+) 0.943; two persons (under age 65) 1.323; two persons (age 65+) 1.190; three persons 1.568; four persons 2.010; five persons 2.381; six persons 2.692; seven persons 3.050; eight persons 3.403; nine persons or more 4.026.

12. The mean amounts of net worth underlying this table (in thousands of dollars) are: \$26.7 in quintile 1, \$45.3 in quintile 2, \$70.6 in quintile 3, \$99.7 in quintile 4, and \$211.4 in quintile 5.

13. If the adjusted amounts are converted to unadjusted amounts, the upper bound of the second net worth quintile is, e.g., \$11,090 for an aged one-person household, \$13,994 for an aged two-person household, and \$23,638 for a four-person household.

14. This pattern is similar to that found by Radner and Vaughan (1984, 1987) using data from the 1979 ISDP.

REFERENCES

- Avery, Robert B., and Elliehausen, Gregory E. 1986. "Financial Characteristics of High-Income Families," *Federal Reserve Bulletin*, Vol. 72, No. 3 (March), 163-177.
- Avery, Robert B., Elliehausen, Gregory E.; Conner, Glenn B.; and Gustafson, Thomas A. 1984a. "Survey of Consumer Finances, 1983," *Federal Reserve Bulletin*, Vol. 70, No. 9 (September), 679-92.
- _____. 1984b. "Survey of Consumer Finances, 1983: A Second Report," *Federal Reserve Bulletin*, Vol. 70, No. 12 (December), 857-68.
- Beach, Charles M. 1981. *Distribution of Income and Wealth in Ontario: theory and evidence*, Ontario Economic Council Research Studies, University of Toronto Press, Toronto.
- Cartwright, William S., and Friedland, Robert B. 1985. "The President's Commission on Pension Policy Household Survey 1979: Net Wealth Distributions by Type and Age for the United States," *Review of Income and Wealth*, Series 31, No. 3 (September), 285-308.
- David, Martin. 1959. "Welfare, Income, and Budget Needs," *The Review of Economics and Statistics*, Vol. XLI (November), 393-99.
- Ferber, Robert. 1966. *The Reliability of Consumer Reports of Financial Assets and Debts*, Studies in Consumer Savings, No. 6, Bureau of Economic and Business Research, University of Illinois.
- Ferber, Robert; Forsythe, John; Guthrie, Harold W.; and Maynes, E. Scott. 1969. "Validation of a National Survey of Consumer Financial Characteristics: Savings Accounts," *Review of Economics and Statistics*, Vol. LI, No. 4 (November), 436-44.
- Greenwood, Daphne. 1983. "An Estimation of U.S. Family Wealth and Its Distribution from Microdata, 1973," *Review of Income and Wealth*, Series 29, No. 1 (March), 23-44.
- _____. 1987. "Age, Income, and Household Size: Their Relation to Wealth Distribution in the United States," in Edward N. Wolff, ed., *International Comparisons of the Distribution of Household Wealth*, Oxford University Press.
- Hurd, Michael, and Shoven, John B. 1982. "Real Income and Wealth of the Elderly," *American Economic Review*, Vol. 72 (May), 314-18.
- Ireland, Lola M. 1972. "Retirement History Study: Introduction," *Social Security Bulletin*, Vol. 35 (November), 3-8.

Irvine, Ian. 1980. "The Distribution of Income and Wealth in Canada in a Lifecycle Framework," *Canadian Journal of Economics*, Vol. XIII (August), 455-74.

Joint Economic Committee. 1986. "The Concentration of Wealth in the United States (Trends in the Distribution of Wealth Among American Families)," July, United States Congress.

Moon, Marilyn. 1977. *The Measurement of Economic Welfare (Its Application to the Aged Poor)*, Institute for Research on Poverty Monograph Series, Academic Press, New York.

Murray, Janet. 1964. "Potential Income from Assets: Findings of the 1963 Survey of the Aged," *Social Security Bulletin*, Vol. 27 (December), 3-11.

Nordhaus, William D. 1973. "The Effects of Inflation on the Distribution of Economic Welfare," *Journal of Money, Credit, and Banking*, Vol. 5, 465-504.

Pearl, Robert B., and Frankel, Matilda. 1984. "Composition of the Personal Wealth of American Households at the Start of the Eighties," in Seymour Sudman and Mary A. Spaeth, eds., *The Collection and Analysis of Economic and Consumer Data: In Memory of Robert Ferber*, Bureau of Economic and Business Research & Survey Research Laboratory, University of Illinois.

Projector, Dorothy S., and Weiss, Gertrude S. 1966. *Survey of Financial Characteristics of Consumers*, Board of Governors of the Federal Reserve System.

_____. 1969. "Income-Net Worth Measures of Economic Welfare," *Social Security Bulletin*, Vol. 32 (November), 14-17.

Radner, Daniel B. 1975. "Discussion," 1975 Proceedings of the American Statistical Association, Business and Economic Statistics Section, 43-44.

_____. 1984. "The Wealth and Income of Aged Households," 1984 Proceedings of the American Statistical Association, Social Statistics Section, 490-95.

Radner, Daniel B., and Vaughan, Denton R. 1984. "The Joint Distribution of Wealth and Income for Age Groups, 1979," ORS Working Papers, No. 33, Office of Research, Statistics, and International Policy, Social Security Administration, March.

_____. 1987. "Wealth, Income, and the Economic Status of Aged Households," in Edward N. Wolff, ed., *International Comparisons of the Distribution of Household Wealth*, Oxford University Press.

Schwartz, Marvin. 1983. "Trends in Personal Wealth, 1976-1981," *SOI Bulletin*, Vol. 3, No. 1 (Summer), 1-26.

Smith, James D. 1974. "The Concentration of Personal Wealth in America, 1969," Review of Income and Wealth, Series 20, No. 2 (June), 143-180.

_____. 1987. "Recent Trends in the Distribution of Wealth: Data, Research Problems, and Prospects," in Edward N. Wolff, ed., International Comparisons of the Distribution of Household Wealth, Oxford University Press.

Steuerle, Eugene, and McClung, Nelson. 1977. "Wealth and the Accounting Period in the Measurement of Means," Technical Paper VI, The Measure of Poverty, Department of Health, Education, and Welfare.

Taussig, Michael K. 1973. Alternative Measures of the Distribution of Economic Welfare, Industrial Relations Section, Department of Economics, Princeton University.

U.S. Bureau of the Census. 1986a. Characteristics of the Population Below the Poverty Level: 1984, Current Population Reports, Series P-60, No. 152 (June), U.S. Government Printing Office.

_____. 1986b. Household Wealth and Asset Ownership: 1984, Current Population Reports, Series P-70, No. 7 (July), U.S. Government Printing Office.

Weisbrod, Burton A., and Hansen, Lee W. 1968. "An Income-Net Worth Approach to Measuring Economic Welfare," American Economic Review, Vol. LVIII (December), 1315-29.

Wolff, Edward N. 1983. "The Size Distribution of Household Disposable Wealth in the United States," Review of Income and Wealth, Series 29, No. 2 (June), 125-146.

_____. 1987. "The Effects of Pensions and Social Security on the Distribution of Wealth in the U.S.," in Edward N. Wolff, ed., International Comparisons of the Distribution of Household Wealth, Oxford University Press.

Wolfson, Michael C. 1979. "Wealth and the Distribution of Income, Canada 1969-70," Review of Income and Wealth, Series 25 (June), 129-40.