FAMILY UNIT INCOMES OF THE ELDERLY AND CHILDREN, 1994

Daniel B. Radner*

Division of Economic Research

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*Division of Economic Research, Social Security Administration,
4301 Connecticut Avenue, N.W., Washington, D.C. 20008

ABSTRACT

The economic status of the elderly and the economic status of children are analyzed using a comprehensive definition of income that takes selected types of noncash income and taxes into account. Estimates are presented for detailed age groups over the entire age range and for socioeconomic classifications within the elderly subgroup and within the subgroup of children. The paper finds that children and the elderly are less well off than the middle age groups. This result is obtained using median incomes and the percentage of the group that has low income, as defined in this paper. When results obtained with the measures presented in this paper are compared with results obtained with more commonly used measures, there are important differences for both the elderly and for children. For both groups, the composition of the low income population differs in important ways from the composition of the official poverty population.

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I. INTRODUCTION

Perceptions about the economic status of various subgroups of the population can have

important impacts on income support and other policies chosen by the government. For

example, for many years the elderly as a group were perceived to be in poor economic

condition. The reaction was to increase government assistance to the elderly (e.g., by raising

Social Security benefits). In contrast, in recent years the elderly as a group have been perceived

to be well off financially. The reaction in this case has been a tendency to decrease government

assistance to the elderly (e.g., proposals to reduce Social Security benefits).[1]

Perceptions about economic status can be affected in important ways by technical choices

made in estimating economic status. Those choices include the definition of income and the

adjustment, if any, made for differential needs of units of different size or composition. There

is general agreement that an income definition that is confined to cash income before tax, the

most commonly used definition, is not fully satisfactory in most cases. There is also general

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[1]In recent years there has also been a greater realization that the elderly are not a homogeneous group. For example, there have been proposals aimed at improving the economic situation of very old widows, who are considered to be substantially worse off than the elderly as a whole, at the same time that the elderly as a group are facing proposals to reduce assistance.

agreement that the official U.S. poverty measure is less than ideal. In both cases, however, there is no consensus on the best alternative for the analysis of economic status.

Perceptions can also be affected by the choice of comparisons. For example, examining detailed age groups or detailed socioeconomic subgroups within an age group emphasizes the heterogeneity present within a group. Also, the examination of such subgroups can produce insights that are not apparent using summary groups.

For many years the economic status of subgroups of the population generally has been assessed using cash income before tax as the measure of resources. This has been particularly true for detailed examinations of the income of the elderly (e.g., Radner 1995, Grad 1996). Although it has been recognized that such a measure was less than fully satisfactory, the data needed to estimate a more comprehensive measure of income often were not available, especially when changes over substantial periods of time were examined.

In recent years, however, definitions of income that include several types of noncash income and that take several types of taxes into account have been used more frequently in analyses of subgroups of the population. For recent examples see Bureau of the Census (1996) and Congressional Budget Office estimates in U.S. Congress (1993, pp. 1405-1409).[2] It should be noted, however, that choices regarding which types of noncash income should be included and how those types should be valued are controversial.[3]

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[2]Some researchers prefer consumption, rather than income, as the measure of economic status (e.g., Cutler and Katz 1992, Slesnick 1993). Consumption as a measure of economic status is not discussed in this paper.

[3]See Radner (1993) for an overview of estimates of the economic status of the elderly that take account of noncash income.

In this paper, the economic status of the elderly (persons age 65 and older) and the economic status of children (persons under age 18), the two age groups that are considered by many analysts to be the least well off, are examined. First, estimates for detailed age groups over the entire age range are presented to examine how well off the elderly and children are relative to other age groups. Then, detailed socioeconomic classifications are shown within the elderly subgroup and within the subgroup of children. A comprehensive definition of income that takes selected types of noncash income and taxes into account is used. Income amounts are adjusted for differences in needs among family units of different size and composition using an equivalence scale. Relative median incomes (the median for a subgroup divided by the median for all units) and the percentage of the group that has low income (as defined in this paper) are the measures of economic status used. Estimates using those measures also are compared with estimates of relative median incomes obtained using cash income before tax as the definition of income and with official poverty rates so that differences from the most commonly used measures can be highlighted. Data for 1994 from the March 1995 Current Population Survey, conducted by the Bureau of the Census, are used. Previous research on this topic that used a comprehensive definition of income either examined less detailed subgroups of the elderly and children, did not adjust income for differential needs, or used older data.

The paper finds that:

- When the comprehensive definition of income, adjusted using an equivalence scale, is used, children and the elderly are less well off than the middle age groups. This result is obtained using both relative median incomes and the percentage of the group that has low income as the measures of economic status.

- The same general pattern by age is found when the more commonly used measures are applied, but there are important differences.

    - The relative median income of the elderly is higher using the comprehensive definition of income than using cash income before tax. On the other hand, when we shift from the poverty rate measure to the low income measure, the elderly show a larger proportional increase in the percentage of persons below the threshold than other age groups do.

    - The relative median income for children is the same for the comprehensive definition of income and for cash income before tax. When we shift from the poverty rate measure to the low income measure, children show a smaller proportional increase than other age groups do.

- For some subgroups of the elderly and children, relative economic status changes substantially when comprehensive income and the low income measure are used. As one indication of these shifts, for the elderly and for children, the composition of the low income group differs in important ways from the composition of the poverty group. For the elderly, married persons and males are larger proportions of the low income group than they are of the poverty group.

After this introduction, the data and measures used are discussed in Section II. Results for detailed age groups are shown in Section III. Section IV contains results for subgroups of the elderly and Section V contains results for subgroups of children. A summary and conclusions are presented in Section VI. The equivalence scale and low income measure used are discussed in the appendix.

II. DATA AND MEASURES

The data used are from the March 1995 Current Population Survey, a survey of about 60,000 households covering the civilian noninstitutional population (Bureau of the Census 1996). The income data are annual data for calendar year 1994. The comprehensive income concept used in this paper (which will be referred to as "COMP") includes cash income and selected types of noncash income, and takes account of several types of taxes. The data on annual cash income and on one type of noncash income were obtained in the survey. The estimates of the other types of noncash income were added by the Bureau of the Census, as were the estimates of tax liability.

Cash income (which will be referred to as "CASH") includes earnings (wages and salaries and net income from self-employment), Social Security benefits (Old Age, Survivors, and Disability Insurance benefits and railroad retirement benefits), Supplemental Security Income (SSI), income from assets, income from various other types of transfers, and other regularly received income (Bureau of the Census 1996).

COMP includes three types of noncash income: Food stamps, school lunches, and housing subsidies. Information on the face value of food stamps was collected in the survey. The income value was set equal to the face value. For the school lunch program, the income value for each family that had at least one participating child was calculated using information on whether each child received a regular price, reduced price, or free lunch. The income value of housing subsidies was estimated using information from the survey on whether a given household lived in a public or subsidized housing unit and information from outside the survey (Bureau of the Census 1993).

Several types of noncash income that have been included in some analyses are excluded here. Medicare and Medicaid are excluded because of the controversial nature of those estimates and of their role in measured economic well-being. In particular, the relationship between government medical noncash income and needs is uncertain and the inclusion of that type of income can have a large effect on the measured economic well-being of at least some subgroups of the population (e.g., the elderly) (Radner 1994). Employer contributions for health insurance are omitted to avoid including only one type of medical noncash income, while excluding others.

Imputed rent on owner-occupied homes is excluded because of its uncertain relationship to economic status. Imputed rent generally is not fungible and some units could have high incomes due to large amounts of imputed rent, but at the same time could have little other income to meet needs other than housing (or even to pay for utilities and maintenance of the house). The types of noncash income included here are "near money" and do not suffer from this type of problem.

Several types of taxes and related items are taken into account in COMP: Federal and State personal income taxes; the Earned Income Tax Credit; Social Security payroll taxes (employee and self-employed); and the retirement plan deduction paid by Federal employees.[4] Estimated amounts of realized capital gains and losses are included in COMP so that the estimation of tax liabilities will more closely conform to the tax code (Bureau of the Census 1996).

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[4]The Federal retirement deduction is taken into account because it is viewed as analogous to the retirement portion of the Social Security payroll tax. Also, note that the Medicare portion of the Social Security payroll tax is deducted from income even though the noncash income value of Medicare is excluded from income.

It is important to consider the quality of the income data. The cash income data suffer, on average, from underreporting. It has been estimated that total cash income before tax (after imputation for nonresponse) is underreported by roughly 10 percent in this survey (Bureau of the Census 1993, table C-1). Based on earlier data, it has also been estimated that elderly family units underreport their total cash income before tax by a higher percentage than other age groups do because the elderly rely more heavily on income types, such as interest and dividends, that are reported relatively poorly (Radner 1983). An adjustment for underreporting would be expected to raise the income of the elderly relative to that of other age groups. It was not feasible to apply an adjustment for underreporting in the estimates presented here. Although it is much more difficult to assess the quality of the estimates of noncash income and taxes, almost all of those items are imputed to the file and therefore are subject to the important types of errors present in such estimates.

The unit of analysis used here is the person. The income concept is the family unit income of the person, with income adjusted using an equivalence scale.[5] That is, each person in a family unit is assigned the adjusted total income of that unit. Thus, each person's economic status is measured by the adjusted income of the unit to which the person belongs and all persons

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[5]A family unit is either a family--2 or more persons residing together and related by blood, marriage, or adoption--or an unrelated individual--a person age 15 or older who resides with no relatives (Bureau of the Census 1993).

in a unit are considered to have equal economic status.[6] This assumption of equal economic status within the unit is incorporated in the official U.S. measure of poverty, as well as in the revised poverty measure proposed by the Panel on Poverty and Family Assistance of the Committee on National Statistics (CNSTAT), National Research Council.[7]

In the estimates presented here, family unit income is adjusted for differential needs using an equivalence scale that has the following form:

$$S_i = (A_i + kB_i)^c$$

where S_i is the equivalence scale value for family unit i, A_i is the number of adults (persons age 18 or older) in the unit, B_i is the number of children (persons under age 18)[8] in the unit, k is the factor that relates the needs of children to the needs of adults, and c is a parameter specifying

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[6]This assumption of equal economic status for all persons in a unit, however, is controversial, at least for some applications. For example, an aged widow who lives in her married child's house might have a different economic status than other members of the family. Some problems associated with an assumption of equal economic status within the unit have been recognized for a long time and estimates using modified assumptions have been presented. For example, Orshansky (1965) showed estimates of the "hidden poor" (essentially persons who lived in a nonpoor family, but whose own income would have been below the poverty threshold). Related estimates are shown by Grad (1996, tables VIII.7 to VIII.10) and Social Security Administration (1995, table 3.E4). A related problem is that two (or more) unrelated individuals who live in the same household are assumed to not share income and/or expenses at all. In the usual application of an equivalence scale, each of them is assumed to have the same needs as an unrelated individual who lives alone.

[7]This panel of experts was formed in 1992 to examine concepts, measurement methods, and information needs for a revised poverty measure. The Panel's work was funded by the U.S. Government. See Citro and Michael (1995) for a detailed description of the Panel's recommendations.

[8]An exception to these definitions of children and adults is that persons age 15-17 who were family heads, spouses of family heads, or unrelated individuals were considered to be adults, rather than children, for the calculation of the equivalence scale values on the grounds that such persons were likely to be in adult roles and therefore were likely to have the level of needs of adults. There were only a few such persons in the sample.

economies of scale in the needs of a unit. In this paper, k and c are both assumed to be 0.7 for all units.

This general formulation of the equivalence scale is the same as that used in the poverty thresholds in the new measure of poverty recommended by CNSTAT (Citro and Michael 1995). (The scale used here is referred to as the CNSTAT scale in this paper.) CNSTAT recommended a value of 0.7 for k and a range of 0.65 to 0.75 for c; the midpoint of that range is used here. There is no consensus on the best equivalence scale; many different scales have been used in research on economic status. The CNSTAT equivalence scale was chosen for use here so that some effects of applying that scale could be examined.

Two important points about the CNSTAT scale should be noted. First, 1-person units have relatively low needs compared with the scale implicit in the official U.S. poverty thresholds. Second, the CNSTAT scale has no differential between aged and nonaged adults, as the scale implicit in the official poverty thresholds does. Both of these differences have important effects on some estimates presented here. The CNSTAT equivalence scale is discussed in the appendix.

Income is adjusted by dividing each family unit's income by the equivalence scale value that applies to that unit. Because the scale used here has a value of 1.00 for a 1-person unit, the estimates of adjusted income can be viewed as income per equivalent adult.

In this paper, a person is considered to be in the low income group if the family unit income of the person, adjusted using the equivalence scale described above, is below one-half the adjusted median income for all persons. This general type of measure has been used extensively, and frequently is applied in international comparisons where comparable thresholds

are difficult to specify (Citro and Michael 1995, Ruggles 1990). COMP is used as the definition of income for this measure (which is referred to as the "LOW-COMP" measure). Estimates using a version of this measure that has CASH as the definition of income ("LOW-CASH") are also shown for purposes of comparison. The low income measure used here is discussed in the appendix.

The official poverty thresholds are not used in the low income measure for two principal reasons. First, those thresholds were formulated for use with cash income and the appropriateness of their use with a definition that includes noncash income is questionable. Second, for more than 3 decades, the level of the official thresholds has been adjusted only for price level changes. If increases in the standard of living during that period had been taken into account, the poverty thresholds would have been higher. It is the view of this author that poverty thresholds should be adjusted to reflect changes over time in the standard of living. Many analysts share this view; in the revised poverty measure proposed by CNSTAT, the thresholds would rise as the standard of living rose.[9] The type of measure used here does reflect changes in the standard of living over time. The new poverty measure recommended by CNSTAT was not used because it was not feasible to estimate either the income concept or the poverty thresholds proposed in that measure.

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[9]See Citro and Michael (1995) for a discussion of the relative nature of poverty thresholds.

III. DETAILED AGE GROUPS

The first population groups examined are detailed age of person groups covering the entire age range. Relative median adjusted incomes are examined, followed by estimates of the lower part of the income distribution.[10]

Relative medians

Relative median adjusted family unit income of persons, by age of person, is shown in table 1 and chart 1. Income is adjusted using the CNSTAT equivalence scale. The detailed age groups shown in that table cover the entire age range, from children under the age of 5 to "old old" persons aged 85 or older. Estimates using COMP are shown; for purposes of comparison, estimates using CASH also are shown.

The estimates using COMP show a pattern of relatively high medians in the middle of the age range (roughly ages 30-64) and relatively low medians at younger and older ages. This general pattern has been found by others using different measures. The relative medians range from a low of 0.72 for the 85 and older age group to a high of 1.37 for the 50-54 age group. Although the oldest age group has the lowest relative median of any age group, the value for children under 5 years of age (0.76) is almost as low. For the summary age groups shown, the 18-64 age group has the highest relative median (1.11), followed by persons age 65 and older (0.89) and persons under age 18 (0.83). Based on detailed age groups or summary age groups, by this measure the extremes of the age distribution are the least well off.

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[10]These tabulations were based on 149,358 sample cases; the weighted number of persons was 261.616 million. The smallest age group shown (age 85 or older) contained 1,660 sample cases (2.865 million persons).

Within the aged (65 and older) group, the relative medians fall as age rises--from 1.01 for the 65-69 age group to 0.72 for the 85 and older group. For the youngest age groups, the relative medians rise as age rises--from 0.76 for the under 5 years of age group to 0.93 for the 15-19 age group.[11]

When estimates using CASH (and the same equivalence scale) are examined, the general pattern is the same--relatively high values in the middle of the age range and relatively low values at both age extremes (table 1 and chart 1). There are some important differences, however, from the results obtained using COMP. The relative medians using CASH are lower for all groups age 60 and older and higher for the groups in the 30-59 age range. Differences are largest for the aged--0.11 or 0.12 for each detailed aged group. The fact that the aged pay a lower percentage of their income in taxes than other age groups do is the principal reason that the relative median for the aged is higher when COMP is used than when CASH is used. The lower percentage of income paid in taxes by the aged reflects, in part, the favorable tax treatment of their income. For persons below age 30 there is little difference between the two estimates.

There is also a larger difference between the highest and lowest relative medians when CASH is used. For that definition of income, relative medians range from 0.61 to 1.45, while for COMP the range is from 0.72 to 1.37. Looking at the summary groups, the relative median for persons age 65 and older was substantially lower when CASH was used (0.78 compared with

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[11]The value for the 20-24 age group (0.86) is below the value for the 15-19 age group in part because the 20-24 age group contains a higher percentage of persons for whom only their own income, rather than their family income including their parents' income, is counted. Also, the equivalence scale used assumes that needs are higher for a person age 18 or older than for a person under age 18.

0.89), while the relative median for the 18-64 age group was higher, and the relative median for the under 18 age group was unchanged.[12]

Lower part of the income distribution

The percentage of persons with low income (i.e., with adjusted income below one-half of the adjusted median for all persons using COMP and the CNSTAT equivalence scale (LOW-COMP)) is shown for detailed age groups in table 2 and chart 2. Percentages obtained using LOW-CASH, the official definition of poverty, and 150 percent of the official poverty thresholds also are shown and discussed.

Using LOW-COMP, the highest percentages are at the youngest and oldest age groups, with the lowest percentages in the middle of the age range. The age groups with the highest percentages of low income persons generally are those that had relatively low median adjusted incomes. Thus, by this measure also, the extremes of the age distribution are the least well off.

The percentages with low income using LOW-COMP range from a low of 9.7 percent in the 50-54 age group to a high of 28.2 percent in the under 5 age group. Children have the highest percentages with low income--the two age groups under age 10 have the highest

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[12]The estimates using COMP and the CNSTAT equivalence scale can also be compared with estimates that use COMP but that adjust income using an equivalence scale based on the official U.S. poverty thresholds. (See the appendix for a description of that equivalence scale.) The estimates using the poverty threshold equivalence scale show higher relative medians for the 45-84 age groups and lower relative medians for most of the other age groups. The relative median for the elderly (0.95) was higher using the poverty threshold equivalence scale than using the CNSTAT scale (0.89). This difference results primarily from the presence of relatively lower needs for aged units of size 1 or 2 in the poverty threshold scale. The relative median for the 85 and older age group is about the same in the two estimates because the presence of the aged differential in the poverty threshold scale is approximately offset for that group by the lower relative needs for unrelated individuals in the CNSTAT scale. See the appendix for a comparison of these two equivalence scales.

percentages. Percentages for the aged range from a low of 13.5 percent for the 65-69 age group

to a high of 21.9 percent for the 85 and older age group. Looking at the summary age groups,

persons under 18 had by far the highest rate (24.0 percent), aged persons had the next highest

rate (15.6 percent) and persons age 18-64 had the lowest rate (14.4 percent).

For purposes of comparison, estimates of low income using CASH are also shown in

table 2 and chart 2. Those estimates are of persons with cash income below one-half adjusted

median cash income using the CNSTAT equivalence scale (LOW-CASH). The percentage with

low income is higher for each age group using this measure than using LOW-COMP. This

difference results from the fact that taking account of noncash income and taxes generally raised

the incomes of the lower part of the distribution relative to the middle of the distribution.

The general pattern using LOW-CASH is similar to that using LOW-COMP--relatively

high percentages at the youngest and oldest ages and relatively low percentages in the middle

age range. When LOW-CASH is used, the aged have relatively higher percentages with low

income than when LOW-COMP is used. When LOW-CASH is used, elderly persons account

for a higher percentage of the low income group and children account for a slightly lower

percentage.

Poverty rates[13] are also shown in table 2 and chart 2 for purposes of comparison. The

poverty rate is below the low income rate obtained using LOW-COMP for each age group. The

differences between the results obtained using those two measures result from three principal

differences between LOW-COMP and the official poverty measure: the equivalence scales used

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[13]According to the official definition, a person is classified as poor if that person's family unit cash income before tax is below the poverty threshold applicable to that family unit. See Bureau of the Census (1996) for a description of the poverty thresholds.

to adjust for differential needs; the levels of the thresholds; and the definitions of income. See the appendix for a discussion of these differences.

Compared with the percentages obtained using the official poverty measure, the largest percentage increase when LOW-COMP is used occurs in the 65-69 age group (42 percent) and the smallest is in the 10-14 age group (9 percent). Looking at the summary age groups, as a percentage of the official rate, the largest increase is in the elderly age group (33 percent) and the smallest is in the under 18 age group (10 percent). The increase for the 18-64 age group is 21 percent. The result that the elderly are relatively worse off using LOW-COMP than using the poverty rate is the opposite of the finding that, for relative median incomes, the elderly are relatively better off using COMP than using CASH.

The age composition of the poverty population differs slightly from the composition of the low income population obtained using LOW-COMP. There is a slight shift toward relatively more aged persons and relatively fewer young persons when the measure is changed from the official poverty measure to LOW-COMP.[14] [15]

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[14]For the poverty population, 9.6 percent are aged persons, 40.2 percent are under 18 years of age, and 50.2 percent are age 18-64. For the low income population using LOW-COMP, 10.9 percent are aged persons, 37.5 percent are persons under age 18, and 51.6 percent are age 18-64.

[15]Poverty rates for 1992 using the official measure and two versions of the proposed CNSTAT poverty measure are shown in Citro and Michael (1995, table 5-8). Both versions of the proposed measure show a higher poverty rate for all persons than the official measure does. In moving to either version of the recommended measure from the official measure, the rate for persons under age 18 falls slightly relative to the all persons rate. The rate for persons age 65 or older rises slightly relative to the all persons rate for the version of the proposed measure that has relatively higher needs for 1-person units (equivalence scale economies of scale parameter 0.65) and falls slightly when the version that has relatively lower needs for 1-person units (scale parameter 0.75) is used. The equivalence scale used in this paper has a scale parameter value (0.70) midway between these two.

As noted earlier, many analysts believe that the official poverty thresholds are too low. Percentages of persons below 150 percent of the official poverty thresholds are shown in table 2 and chart 2 for comparison purposes. For each age group, that percentage is above the percentage obtained using LOW-COMP. The percentages below 150 percent of the official threshold are similar to the percentages obtained using LOW-CASH. For almost every age group, the percentage below 150 percent of the official threshold is slightly higher than the percentage obtained using LOW-CASH.[16] [17]

In summary, results using four measures are shown here: LOW-COMP, LOW-CASH, the official poverty measure, and 150 percent of the official poverty thresholds. For each age group the official poverty measure shows the lowest percentage and the measure using 150 percent of the official poverty threshold almost always shows the highest percentage. The

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[16]An estimate of the percentage of persons with income below one-half the adjusted median income using COMP and an equivalence scale based on the U.S. poverty thresholds in place of the CNSTAT equivalence scale was also made. That estimate showed a substantially higher rate for the 85 and older group (26.4 percent) than when the CNSTAT equivalence scale was used. Rates using the poverty threshold scale were slightly higher than those obtained using the CNSTAT scale for all groups except the 65-74 age groups. The poverty threshold scale has generally lower relative needs for the aged and higher relative needs for unrelated individuals than does the CNSTAT scale. For the oldest age group, the higher needs for unrelated individuals appear to dominate in the poverty threshold scale estimates.

[17]It is also useful to consider the experimental estimates of poverty published by the Bureau of the Census (1996). Those estimates use the official poverty thresholds in conjunction with several alternative definitions of income. When several types of taxes are taken into account, compared with the official poverty rates, poverty rates change very little for all persons, decline slightly for persons under age 18, and are unchanged for aged persons. When several types of noncash income (but not Medicare and Medicaid) are added (definition 14a), poverty rates fall. These rates are substantially below the rates obtained using LOW-COMP shown here primarily because these experimental poverty rates use the official level of poverty thresholds. It should be noted that comparing a definition of income that includes noncash income with a poverty threshold that was formulated for use with cash income, as is done in this case, is considered to be an inappropriate comparison by many analysts.

percentage using LOW-COMP is below that using LOW-CASH for each age group. Thus, the percentages obtained using the official poverty measure are the lowest, followed by those obtained using LOW-COMP, LOW-CASH, and 150 percent of the official poverty threshold, almost always in that order.

IV. SUBGROUPS OF THE ELDERLY

In this section, relative median incomes and percentages in the lower part of the income distribution are presented for several subgoups of the aged. Those groups include classifications by sex, age, race and Hispanic origin, marital status, type of unit, and presence of earnings, Social Security benefits, and SSI. Sex is used as a classifier in all of the other classifications.[18]

Relative medians

Relative medians using COMP and the CNSTAT equivalence scale are presented first and then are compared with relative medians using CASH and that same scale (table 3). (The all ages median is used as the base for each definition of income.) Two general patterns in these estimates should be noted. First, for almost every category the relative median for males is above that for females. This applies to both COMP and to CASH. Second, for each category the relative median using COMP is above the relative median using CASH. This is true for both sexes, for females, and for males.

When COMP was used, the relative median for aged females was 0.84, while the corresponding figure for males was 0.97 (table 3). The ratio of the median for females to the median for males was slightly higher using COMP (0.87) than when CASH was used (0.85).

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[18]These tabulations were based on 18,187 sample cases of persons age 65 or older; the weighted number of persons was 31.267 million. The smallest subgroup shown (never married males) contained 327 sample cases (543 thousand persons).

The relative median for Blacks was far below that for Whites, and the relative medians for Blacks and persons of Hispanic origin were about the same when COMP was used. The ratio of Black to White median incomes was slightly higher using COMP than using CASH; for both sexes together, the ratio was 0.70 for COMP and 0.68 for CASH.

In the type of unit classification, relative medians for family members were substantially higher than for unrelated individuals when COMP was used. Among family members, married persons had higher relative medians than other persons.[19] The category of other family members was the only one in which the relative median for females exceeded the relative median for males. When CASH was used, the patterns were similar.[20]

Lower part of the income distribution

Estimates of the percentage with low income using LOW-COMP are presented (table 4) and compared with poverty rates and the percentage composition of the low income group is presented (table 5) and compared with the percentage composition of the poverty group. Using LOW-COMP, the rate for females is above the rate for males for almost every category. For the official poverty measure, the rate for females is always higher than the rate for males. For most categories the rate obtained using LOW-COMP is above the official poverty rate.

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[19]In the text and footnotes in this paper, the term "married" denotes being married with a spouse present.

[20]Relative medians also were calculated using COMP and the poverty threshold equivalence scale. Compared with the estimates obtained using COMP and the CNSTAT equivalence scale, these estimates showed comparatively higher relative medians for males, the younger aged, Whites, persons who were married, and family members, and comparatively lower relative medians for unrelated individuals and for persons who were not married. The relatively high needs for unrelated individuals in the poverty threshold scale are an important factor.

When LOW-COMP was used, 18.1 percent of elderly females and 12.0 percent of elderly males had low income (table 4). Using the official poverty rate, 14.9 percent of elderly females and 7.2 percent of elderly males were poor. The low income rate for males was 66 percent of the rate for females, while the poverty rate for males was only 48 percent of the rate for females. Thus, when LOW-COMP is used, the rate for males is relatively higher by a substantial amount, although the rate for females is still much higher than the rate for males. Looked at another way, for elderly low income persons, 68 percent were female and 32 percent were male. For elderly poor persons, 74 percent were female and only 26 percent were male (table 5).

For both sexes together, the percentage of Blacks with low income was more than double the percentage for Whites and was about the same as for persons of Hispanic origin. The poverty rates for White males and males of Hispanic origin were substantially lower than the percentages with low income. The poverty population contains relatively fewer White males than does the low income group.

Looking at marital status, for both sexes together the percentage with low income was highest for never married persons (25.0 percent) and lowest for married persons (11.0 percent). The poverty rate for persons who were married was less than half of the low income rate for that group. When examined by marital status groups, the composition of the poverty population was quite different from the composition of the low income group. The poverty population was 22 percent married and 53 percent widowed, while the low income group was 39 percent married and 43 percent widowed.

For the classification by type of unit, family members had lower percentages with low income than did unrelated individuals. Poverty rates for family members were far below the low income rates, while poverty rates for unrelated individuals were slightly above the low income rates. For type of unit, the composition of the poverty population was quite different from the composition of the low income group. Family members accounted for 34 percent and unrelated individuals accounted for 66 percent of the poverty population. For the low income group, family members accounted for 53 percent and unrelated individuals for only 47 percent.[21]

V. SUBGROUPS OF CHILDREN

In this section, relative median incomes and percentages in the lower part of the income distribution are presented for subgroups of children (defined as persons under age 18) based on age, race, marital status of the family head, type of family, and the presence of earnings, Social Security benefits, and SSI in the income of the family. Differences by the sex of the child are small and are not shown here.[22]

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[21]Estimates of persons below one-half the adjusted median income using COMP and the poverty threshold equivalence scale were also prepared. In those estimates, old old females, persons who were not married, and unrelated individuals had higher percentages below one-half the median and persons who were married and persons who were family members had lower percentages than in the low income estimates using the CNSTAT equivalence scale. These important differences result from the differences in the equivalence scales used. The composition of the low income group calculated using the poverty threshold scale was roughly similar to the composition of the poverty group for most subgroups. This result suggests that the large differences between the composition of the poverty group and the composition of the low income group were primarily due to the difference in the equivalence scales used. (See the appendix for further discussion.) This is an important point to be considered in the discussion of a revision of the official poverty measure.

[22]These tabulations were based on 41,463 sample cases of persons under age 18; the weighted number of persons was 70.020 million. The smallest subgroup shown (family head married spouse absent) contained 424 sample cases (647 thousand persons).

Relative medians

Using COMP, the relative median for all children was 0.83 (table 6). This value was the same as that obtained when CASH was used. Relative medians differ by the age of the child, rising as age increases. This difference primarily reflects the older ages of the parents for older children.

The relative median for White children is far above that for Black children and for children of Hispanic origin when COMP is used. This difference is smaller than when CASH is used. When COMP is used, the relative median for Black children is 24 percent higher and the relative median for children of Hispanic origin is 20 percent higher than when CASH is used.

Using COMP, for type of family, the relative median for children in a family headed by a husband-wife couple is much higher than the relative medians for the other categories. These differences are even larger when CASH is used. The relative median for the other female head category was substantially lower when CASH was used.[23]

Lower part of the income distribution

The estimates using LOW-COMP show that 24.0 percent of persons under age 18 were classified as low income (i.e., were in a family unit that was classified as having low

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[23]When an estimate that used COMP and the poverty threshold equivalence scale was examined, the relative medians for these groups were similar to those obtained using COMP and the CNSTAT equivalence scale. This is in contrast to the results for the aged, which showed some large differences. There is little difference here primarily because the difference in relative needs for unrelated individuals plays virtually no role here (there are very few unrelated individuals under age 18).

income)(table 7). The official poverty rate for children was 21.8 percent. For most subgroups of children the percentage with low income was higher than the percentage poor.

The percentage with low income was much lower for White children than for Black children or for children of Hispanic origin. The pattern was similar for poverty rates. Looking at the composition of the group, the poverty population had a slightly higher percentage of Black children and a slightly lower percentage of White children than the low income population did (table 7).

The estimates for type of family show that children in other female head families had the highest percentage with low income. The poverty rate also was highest for that group. The poverty rate for children in husband-wife families was substantially below the low income rate for that group. Compared with the poverty population, the composition of the low income population showed a higher percentage for the husband-wife couple group (42 percent compared with 36 percent) and a lower percentage for the other female head group (51 percent compared with 57 percent).[24]

VI. SUMMARY AND CONCLUSIONS

When the comprehensive definition of income (COMP) and the CNSTAT equivalence scale are used, children and the elderly are less well off than the middle age groups. This result is obtained using both relative median incomes and the percentage of the group that has low income, the two measures of economic status focused on in this paper. This result confirms, in broad terms, what the usual measures (relative median cash income before tax and the official

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[24]When estimates using COMP and the poverty threshold equivalence scale were examined, the low income percentages were similar to those obtained using LOW-COMP. The composition of the low income group was very similar using the two estimates.

poverty measure) show. Thus, using a more comprehensive, and therefore better, definition of income does not change this general result relating to the relative rankings of broad age groups. When one looks beyond this very broad comparison of relative rankings, however, there are important differences between the new results presented here and results obtained using the usual measures.

The two measures focused on in this paper (relative median comprehensive income and the percentage of the group that has low income) show that, compared with commonly used measures, the elderly are relatively better off than other age groups in terms of one measure, but relatively worse off in terms of the other. The relative median income of the elderly is higher using COMP than using cash income before tax (CASH). Relative to the percentage for other age groups, however, the percentage of the elderly that has low income is higher than the percentage of the elderly that is below the official poverty threshold.

The two measures focused on in this paper show that, compared with commonly used measures, children are relatively better off than other age groups in terms of one measure and are equally well off in terms of the other. Relative to the percentage for other age groups, the percentage of children that has low income is lower than the percentage of children that is below the official poverty threshold. The relative median income for children is the same for COMP and for CASH.

When results using the low income measure and the official poverty measure are compared, the percentage of elderly persons with low income is 33 percent higher than the percentage who are poor. In contrast, the percentage of children with low income is only 10 percent higher than the percentage of children who are poor. The percentage of the 18-64 age

group with low income is 21 percent higher than the percentage who are poor. Thus, different measures of the lower part of the distribution can produce very different percentages.

When detailed subgroups of the elderly are examined using COMP, males, Whites, and family members have higher relative medians and lower percentages in the low income group than females, Blacks, and unrelated individuals, respectively. For all of the detailed subgroups shown, relative medians are lower when CASH is used as the definition of income. Official poverty rates are below the low income rates using COMP for most of the detailed subgroups; males, Whites, and family members have relatively large differences. When the composition of the low income group is compared with the composition of the poverty group, the low income population consists of substantially lower percentages of females (especially widowed females) and unrelated individuals and a substantially higher percentage of married persons. Thus, the composition of the low income group is quite different from the composition of the poverty group for some classifications.

Subgroups of children are also examined. Whites and children in families headed by a husband-wife couple have higher relative median incomes and lower percentages in the low income group than Blacks and children in families headed by nonmarried persons, respectively. When CASH is used as the definition of income, the relative medians for children who are Black and for children in families headed by a nonmarried person are lower than when COMP is used. Official poverty rates are lower than low income rates for most subgroups; the largest relative difference is for children in families headed by a husband-wife couple. The population of children in low-income families contains a higher percentage of children in families headed by

a husband-wife couple and a lower percentage of children in families headed by a nonmarried person than the percentages of the population of poor children.

In general, the better off subgroups of the elderly and children show an increase in the percentage with low income relative to the poverty rate. In part this results from the higher level of the threshold for the low income measure than for the poverty measure. Also, subgroups (e.g., elderly males) that have a relatively low proportion of unrelated individuals tend to show an increase in the percentage with low income relative to the poverty rate. This difference results primarily from the relatively lower needs for unrelated individuals in the low income estimates (i.e., in the CNSTAT equivalence scale). The absence of an age differential in the low income estimates tends to make the percentage of the aged with low income relatively higher than the percent poor, but the difference in needs for unrelated individuals works in the opposite direction since the aged group has a relatively large number of unrelated individuals.

The way in which economic status is measured can affect perceptions about how well off various groups are. If those perceptions are altered, then policy choices can be affected. Although the general ranking of subgroups according to economic status is the same in the different estimates, the relative positions of some subgroups are altered significantly when the new estimates presented here replace the usual estimates.

For example, in this paper, the composition of the low income elderly group is quite different from the composition of the poverty elderly group for some classifications shown. Married persons account for about two-fifths of the elderly low income group, but they account for only about one-fifth of the elderly poverty group. Males account for about one-third of the elderly low income group, but they represent only about one-fourth of the elderly poverty group.

Female unrelated individuals represent about two-fifths of the elderly low income group, but they represent more than half of the elderly poverty group. In the elderly low income group, there are about the same number of married persons and widowed females, while in the elderly poverty group there are more than twice as many widowed females as married persons.

Differences such as these could affect perceptions about how well off subgroups of the elderly are and thus could affect policy proposals. For example, the results presented here could cause policymakers to give more consideration to the needs of low income elderly married persons, a group that has received little attention. For elderly married persons, the percentage with low income is almost 2 1/2 times the official poverty rate.[25]

The choice of an equivalence scale has an important effect on some of the estimates presented here. As discussed above, the CNSTAT equivalence scale has relatively lower needs for 1-person units than does the poverty threshold equivalence scale and that difference has important effects (also see the appendix). Although it is not obvious which of these scales (or some other scale) is preferable in this respect, it does seem clear that the choice of the equivalence scale warrants a great deal of attention.

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[25]Of course, policy should be based on more than just simple counts of persons with low income or in poverty. How far the person's family unit income is below the threshold is important, as is the number of persons who are just above the threshold. Those more detailed indicators were beyond the scope of this paper.

Table 1.--Relative median adjusted family unit incomes
of persons, by age of person, 1994

Age of person	Comprehensive income	Cash income
Under 5	0.76	0.75
5-9	0.81	0.80
10-14	0.88	0.88
15-19	0.93	0.93
20-24	0.86	0.85
25-29	1.00	1.01
30-34	1.03	1.06
35-39	1.11	1.15
40-44	1.19	1.24
45-49	1.35	1.43
50-54	1.37	1.45
55-59	1.26	1.29
60-64	1.11	1.07
65-69	1.01	0.90
70-74	0.92	0.80
75-79	0.86	0.74
80-84	0.78	0.67
85 and older	0.72	0.61
Under 65	1.02	1.04
Under 18	0.83	0.83
18-64	1.11	1.14
65 and older	0.89	0.78
All ages	1.00	1.00
Median adjusted income ($)	15,371	17,976

Chart 1.--Relative median adjusted family unit incomes of persons, 1994
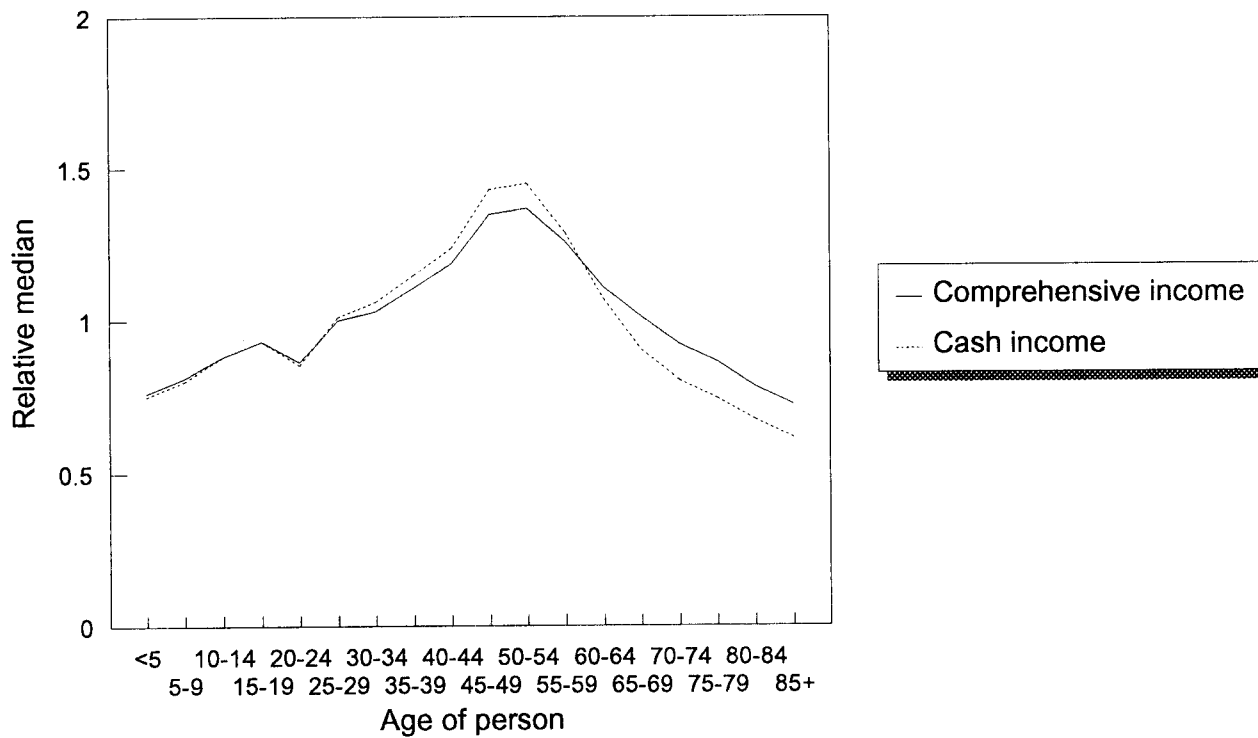
Table 2.--Percentage of persons with low adjusted income or below the poverty threshold, by age of person, 1994

Age of person	Low income		Poverty	
	Comprehensive income	Cash income	Below threshold	Below 150% of threshold
Under 5	28.2	34.8	25.3	37.3
5-9	24.7	31.3	22.5	34.2
10-14	21.3	27.4	19.5	30.2
15-19	20.7	26.0	18.4	28.2
20-24	21.1	25.9	17.9	29.8
25-29	16.8	20.8	14.0	24.0
30-34	14.9	19.1	12.5	21.3
35-39	13.4	17.1	11.6	19.3
40-44	11.6	14.5	9.4	16.2
45-49	9.8	11.8	7.9	13.0
50-54	9.7	12.0	7.6	13.1
55-59	12.8	15.5	10.4	16.6
60-64	14.9	19.2	11.4	20.7
65-69	13.5	20.7	9.5	20.7
70-74	14.9	23.0	10.8	23.8
75-79	15.0	24.7	11.3	26.8
80-84	18.5	30.8	15.1	34.0
85 and older	21.9	36.2	18.0	40.5
Under 65	17.3	21.7	14.9	24.0
Under 18	24.0	30.4	21.8	33.1
18-64	14.4	17.9	11.9	20.0
65 and older	15.6	24.9	11.7	26.3
All ages	17.1	22.1	14.5	24.3

Chart 2.--Percentage of persons with low income or below the poverty threshold, 1994

Legend:
- —o— Comprehensive income
- ····· Cash income
- —·— Poor
- —·—·— Poor + near poor

Y-axis: Percent (0, 10, 20, 30, 40, 50)

X-axis: Age of person (<5, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+)
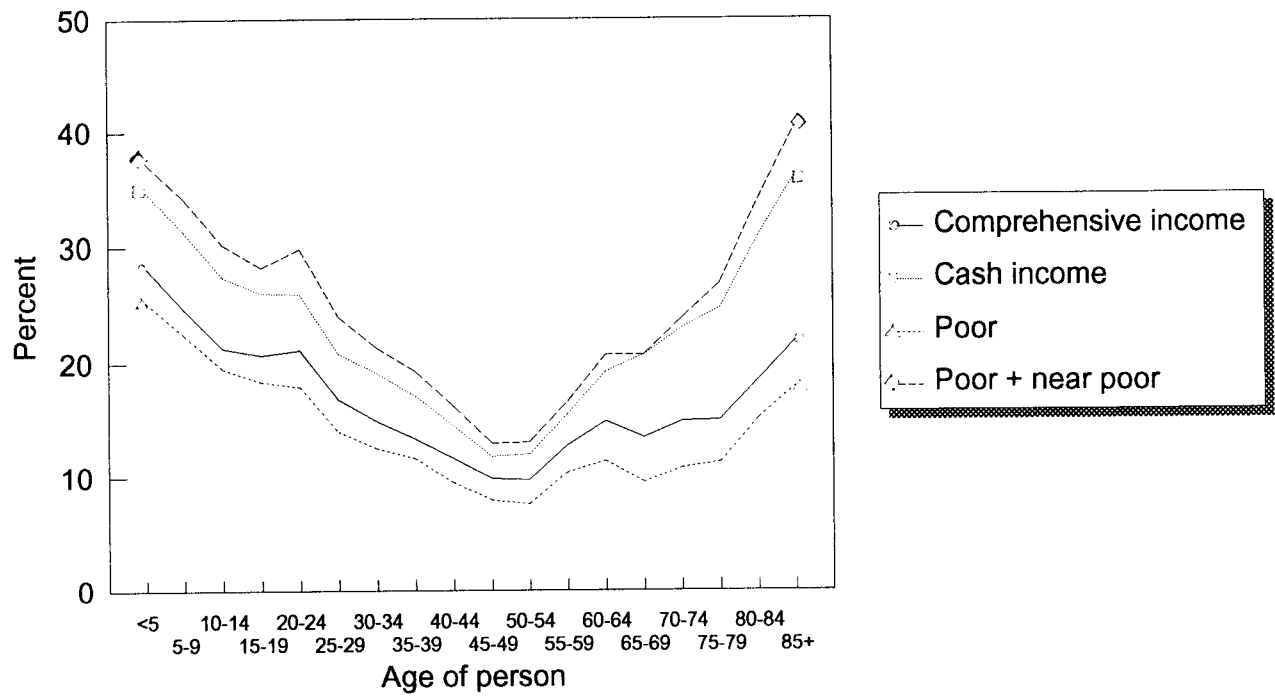
Table 3.--Relative median adjusted family unit income of aged persons, 1994

	Comprehensive income			Cash income		
	Both sexes	Female	Male	Both sexes	Female	Male
Total, age 65 and older	0.89	0.84	0.97	0.78	0.72	0.85
Age						
65-69	1.01	0.96	1.09	0.90	0.85	0.98
70-74	0.92	0.87	0.99	0.80	0.76	0.86
75-79	0.86	0.80	0.97	0.74	0.68	0.83
80-84	0.78	0.74	0.84	0.67	0.63	0.72
85 and older	0.72	0.69	0.82	0.61	0.59	0.70
Race and Hispanic origin						
White	0.92	0.86	1.00	0.80	0.75	0.87
Black	0.64	0.60	0.72	0.54	0.49	0.61
Hispanic origin	0.65	0.61	0.72	0.55	0.48	0.63
Marital status						
Married, spouse present	1.00	0.99	1.01	0.87	0.86	0.88
Widowed	0.77	0.75	0.88	0.66	0.64	0.77
Divorced	0.83	0.78	0.93	0.72	0.66	0.80
Never married	0.78	0.75	0.80	0.68	0.64	0.70
Type of unit						
Family member	0.98	0.96	0.99	0.86	0.85	0.87
Married, spouse present	1.00	0.99	1.01	0.87	0.86	0.88
Other	0.90	0.90	0.87	0.82	0.84	0.80
Unrelated individual	0.74	0.70	0.88	0.62	0.58	0.76
Earnings of person						
Nonzero	1.30	1.21	1.36	1.21	1.14	1.30
Zero	0.84	0.80	0.89	0.72	0.68	0.77
Social Security of family unit						
Nonzero	0.90	0.85	0.98	0.78	0.73	0.85
Zero	0.76	0.63	0.90	0.70	0.56	0.86
SSI of family unit						
Nonzero	0.54	0.53	0.57	0.41	0.39	0.46
Zero	0.92	0.87	0.99	0.80	0.75	0.87

NOTES: The all ages relative median income is 1.00 for each definition of income.
Persons of Hispanic origin may be of any race.
The marital status classification excludes a few separated and married, spouse absent, persons.

Table 4.--Percentage of aged persons with low income or below the poverty threshold, 1994

	Low comprehensive income			Official poverty measure		
	Both sexes	Female	Male	Both sexes	Female	Male
Total, age 65 and older	15.6	18.1	12.0	11.7	14.9	7.2
Age						
65-69	13.5	15.5	11.1	9.5	11.9	6.6
70-74	14.9	16.9	12.3	10.8	13.6	7.2
75-79	15.0	18.1	10.7	11.3	15.0	6.1
80-84	18.5	21.8	12.7	15.1	19.2	8.1
85 and older	21.9	23.2	18.7	18.0	20.2	12.8
Race and Hispanic origin						
White	14.1	16.6	10.6	10.2	13.3	5.9
Black	30.0	33.2	25.1	27.4	31.7	20.6
Hispanic origin	29.7	33.4	25.0	22.6	28.4	15.4
Marital status						
Married, spouse present	11.0	11.0	11.0	4.6	4.7	4.6
Widowed	20.1	21.7	12.2	18.8	20.2	12.1
Divorced	20.9	23.9	16.0	21.9	25.3	16.6
Never married	25.0	28.2	20.4	23.9	27.1	19.4
Type of unit						
Family member	12.4	13.6	11.3	6.0	7.0	5.1
Married, spouse present	11.0	11.0	11.0	4.6	4.7	4.6
Other	19.1	20.1	15.6	12.4	12.7	11.4
Unrelated individual	21.9	24.1	15.0	23.1	25.3	16.1
Earnings of person						
Nonzero	4.4	4.8	4.0	2.8	3.5	2.3
Zero	17.6	19.8	14.2	13.3	16.4	8.5
Social Security of family unit						
Nonzero	14.0	16.4	10.6	10.0	13.1	5.7
Zero	35.5	41.1	28.5	32.7	39.2	24.6
SSI of family unit						
Nonzero	39.1	41.3	33.9	39.7	44.6	28.5
Zero	14.1	16.3	11.0	9.9	12.6	6.3

NOTES: Persons of Hispanic origin may be of any race.
The marital status classification excludes a few separated and married, spouse absent, persons.

Table 5.--Percentage composition of the low income group and the poverty group, aged persons, 1994

	Low comprehensive income			Official poverty measure		
	Both sexes	Female	Male	Both sexes	Female	Male
Total, age 65 and older	100	68	32	100	74	26
Age						
65-69	27	17	10	25	17	8
70-74	26	17	9	25	18	7
75-79	19	13	6	19	15	4
80-84	15	12	4	17	13	3
85 and older	13	10	3	14	11	3
Race and Hispanic origin						
White	81	56	25	78	59	19
Black	16	11	5	19	13	6
Hispanic origin	9	5	3	9	6	3
Marital status						
Married, spouse present	39	17	22	22	10	12
Widowed	43	38	4	53	48	6
Divorced	8	5	2	11	8	3
Never married	7	4	2	9	6	3
Type of unit						
Family member	53	29	24	34	20	15
Married, spouse present	39	17	22	22	10	12
Other	15	12	3	13	10	2
Unrelated individual	47	39	8	66	55	11
Earnings of person						
Nonzero	4	2	2	4	2	2
Zero	96	66	30	96	72	24
Social Security of family unit						
Nonzero	83	57	26	79	60	19
Zero	17	11	6	21	14	7
SSI of family unit						
Nonzero	15	11	4	20	16	4
Zero	85	57	28	80	58	21

NOTES: Persons of Hispanic origin may be of any race.
The marital status classification excludes a few separated and married, spouse absent, persons.

Table 6.--Relative median adjusted family unit income, persons
under age 18, 1994

	Comprehensive income	Cash income
Total, age under 18	0.83	0.83
Age		
Under 6	0.77	0.75
6-13	0.85	0.84
14-17	0.92	0.92
Race and Hispanic origin		
White	0.91	0.92
Black	0.56	0.45
Hispanic origin	0.54	0.45
Marital status of head		
Married, spouse present	0.98	1.01
Married, spouse absent	0.46	0.36
Widowed	0.64	0.54
Divorced	0.66	0.55
Separated	0.46	0.30
Never married	0.41	0.26
Type of family		
Husband-wife couple	0.98	1.01
Other female head	0.48	0.33
Other male head	0.67	0.61
Earnings of family		
Nonzero	0.90	0.91
Zero	0.32	0.16
Social Security of family		
Nonzero	0.73	0.62
Zero	0.84	0.84
SSI of family		
Nonzero	0.46	0.32
Zero	0.85	0.85

NOTES: Persons of Hispanic origin may be of any race.
         In the type of family classification, the few unrelated individuals age
             15-17 are included in the other female head category if female and
             in the other male head category if male.

Table 7.--Percentage with low income or below the poverty threshold and percentage composition of the low income group and the poverty group, persons under age 18, 1994

	Percentage		Percentage composition	
	Low comprehensive income	Official poverty measure	Low comprehensive income	Official poverty measure
Total, under age 18	24.0	21.8	100	100
Age				
Under 6	27.9	25.1	40	40
6-13	23.0	21.0	42	42
14-17	19.7	18.2	18	18
Race and Hispanic origin				
White	19.4	16.9	64	61
Black	44.3	43.8	30	32
Hispanic origin	45.6	41.5	27	27
Marital status of head				
Married, spouse present	14.2	10.9	42	36
Married, spouse absent	51.8	50.1	2	2
Widowed	35.4	33.1	4	4
Divorced	34.9	35.7	15	16
Separated	58.5	58.9	13	14
Never married	61.0	63.1	25	28
Type of family				
Husband-wife couple	14.2	10.9	42	36
Other female head	52.1	53.2	51	57
Other male head	32.4	32.0	6	7
Earnings of family				
Nonzero	17.7	15.3	67	64
Zero	88.0	88.3	33	36
Social Security of family				
Nonzero	26.5	24.9	8	9
Zero	23.8	21.6	92	91
SSI of family				
Nonzero	58.5	57.9	9	10
Zero	22.6	20.4	91	90

NOTES: Persons of Hispanic origin may be of any race.
In the type of family classification, the few unrelated individuals age 15-17 are included in the other female head category if female and in the other male head category if male.

APPENDIX

THE EQUIVALENCE SCALE AND THE LOW INCOME MEASURE

Equivalence scale

The general formulation of the CNSTAT equivalence scale described in the text has also

been used by others (e.g., Cutler and Katz 1992). One characteristic of this formulation should

be noted--there is no difference in needs among persons under age 18. Thus, a 17-month-old

infant and a 17-year-old teenager are both assumed to have the same needs. Some estimates of

needs based on household expenditure data suggest that, ceteris paribus, young children have

lower needs than teenagers do (e.g., Danziger et al. 1984, McClements 1977). The assumed

equality of needs could produce biased results, for example, when the economic well-being of

young children is compared with that of older children. If it is assumed that a value of 0.7 is

roughly correct for children on average, this formulation might overstate the needs of younger

children (and therefore understate their measured economic well-being and the economic well-

being of the other members of their family) and understate the needs of older children (and

therefore overstate their measured economic well-being and the economic well-being of the other

members of their family). A distinction by age of child could be included by modifying the

formulation, but that is not done here.

Also, the difference between 17-year-olds and 18-year-olds can produce some distortions.

In this scale, an 18-year-old has 43 percent higher needs than a 17-year-old (1.0 compared with

0.7). Although the difference is smaller in a family context, there still can be distortions. For

example, a family consisting of two 40-year-olds and one 18-year-old would have an equivalence

scale value of 2.16, which is 8 percent higher than the scale value of 2.00 for a family of two 40-year-olds and one 17-year-old. This difference seems larger than is desirable.

Also, estimates of change over time in panel surveys (e.g., the Survey of Income and Program Participation) can be affected by a large difference in the needs of 17-year-olds as opposed to 18-year-olds. For example, monthly poverty rates could be affected in the month that the person reaches 18 years of age, thus producing a questionable change in the poverty status of the family.

The CNSTAT formulation also assumes that there is no difference in the needs of adults (persons age 18 or older) of different ages or other characteristics. This is the most frequent assumption in equivalence scales, although the scale implicit in the U.S. poverty thresholds does show 8 to 10 percent lower needs for aged units (i.e., with head age 65 or older) of 1 or 2 persons compared with nonaged units of the same size. This difference is controversial and has been the subject of some criticism (Ruggles 1990).

The equivalence scale used here is applied to the incomes of all units regardless of the size of the unit's unadjusted income. Although this type of scale was recommended by CNSTAT for use in poverty measurement, it appears that it was not specifically formulated for units in the lower part of the income distribution. Also, the scale recommended by CNSTAT was intended to be applied to thresholds that exclude several types of important expenses from needs (i.e., medical, work, and child care expenses); it appears that the scale recommended by CNSTAT was not specifically formulated for the limited set of needs included in their thresholds. This can be an important problem because equivalence scales estimated for subsets of total expenses can differ substantially from those estimated for total expenses.

Examples of the scale values used in the estimates presented in this paper are shown in column 1 of table A-1. It is useful to compare these scale values with corresponding values from a scale derived from the U.S. poverty thresholds (table A-1, column 2).[26] When a 1-person unit is used as the base, as it is here, the CNSTAT scale has higher values for all examples shown for units of 2 persons or more. Some of the differences, such as for 2-person units with an aged head and no children, are quite large. These differences result primarily from the relatively low needs for 1-person units in the CNSTAT scale. When a 4-person (2 adult, 2 child) unit is used as the base (table A-1, columns 3 and 4), the values for the CNSTAT and poverty threshold scales generally are not very different except for 1-person units. (The choice of a base unit does not affect the estimates shown in this paper, except for the few dollar amounts shown.)

Relative needs for 1-person units are particularly important for the elderly because that group contains a relatively high percentage of such units. Large differences in the relative needs of 1-person units have an important effect on the estimated composition of the low income group for the elderly.

As noted in the text, the composition of the elderly low income group using COMP and the CNSTAT equivalence scale is quite different from the composition of the elderly poverty group. The composition of the elderly low income group using COMP and the poverty threshold equivalence scale, however, is similar to the composition of the poverty group (table

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[26]In column 2, the first value for each unit size (and for under age 65 and age 65 and older for 1-person and 2-person units) is based on the weighted average poverty threshold for that unit size. The poverty threshold equivalence scale referred to in this paper used those values. The other values shown in that column are based on the appropriate detailed poverty thresholds.

A-2). If the poverty threshold equivalence scale had been used in the low income measure, the composition of the low income group would have been very similar to the composition of the poverty group. Thus, shifting from the poverty threshold equivalence scale to the CNSTAT equivalence scale produced most of the change in composition when the measure was changed from the official poverty measure to LOW-COMP. This result shows that the choice of an equivalence scale can have important effects.

<u>Low income measure</u>

Using COMP (and the CNSTAT equivalence scale with a 1-person unit as the base), the median adjusted income for all persons was $15,371 for 1994; the value used for one-half the median was $7,686. Using CASH as the definition, the median adjusted income for all persons was $17,976; one-half the median was $8,988.

The LOW-COMP measure presented in this paper should not be considered a fully satisfactory substitute for a revised definition of poverty, such as that proposed by CNSTAT. Many issues raised in the CNSTAT report (Citro and Michael 1995), such as taking account of work expenses, child care expenses, and medical expenses, and the specification of thresholds based on expenditure data could not be addressed in this paper. Also, there are issues concerning changes over time in the estimates produced by the type of low income measure used here because when median income falls the threshold falls. Thus, during a recession the percentage with low income could fall as a result of a decline in the threshold. The estimates presented here, however, perhaps can be considered an improvement over estimates that use less comprehensive definitions of income.

Although the low income group is defined here in terms of amounts of adjusted income, implied thresholds in terms of unadjusted income can be calculated and compared with the official poverty thresholds (table A-3). (In terms of adjusted income, the threshold is the same for all categories of family units and is equal to the value for 1-person units because the 1-person unit is the base unit for the equivalence scale used.) There are three differences between the low income measure used here and the official poverty measure: (1) The equivalence scales; (2) the levels of the thresholds; and (3) in the case of COMP, the definitions of income.

The differences between the equivalence scales are described above. The level of the low income thresholds used here is substantially higher than the level of the official poverty thresholds. Many analysts have concluded that the level of the official poverty thresholds is too low because that level does not reflect increases in the standard of living since the thresholds were formulated; the thresholds have been adjusted only for price change since their formulation more than 30 years ago. This view provides a rationale for the higher level of the low income thresholds used here. A measure of the difference in the levels is that, by definition, the adjusted low income threshold is 50 percent of the adjusted median for all units, while the official poverty threshold for a 1-person unit (all ages) is only about 35 percent of the adjusted median for all units (using the poverty threshold equivalence scale).[27]

If 150 percent of the official poverty threshold is used for comparison, that level is about 53 percent of the adjusted median for all units (using the poverty threshold equivalence scale). It should be noted that the implied low income thresholds for CASH are below the 150 percent

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[27]This figure for the poverty threshold is based on a tabulation that used the weighted average equivalence scale shown in table A-1. The scale used also had values for units of 8 persons and units of 9 persons or more.

of the official poverty thresholds for most, but not all, family unit categories (table A-3). Because of the differences between the equivalence scales used, for the categories shown in table A-3, the low income thresholds are higher for aged 2-person units with two adults and for 3-person units with two adults.

Looking at the third difference, when low income is defined using CASH as the definition, there is no difference in income definition between those estimates and the official poverty estimates. When COMP is used, however, there is an important difference.

Defining the low income group as having adjusted income below one-half the adjusted median for all persons means that, as long as the equivalence scale used is consistent with the definition of income used, there is no inconsistency between the threshold level and the definition of income. Using a comprehensive definition of income in conjunction with the official poverty thresholds, which are defined in terms of cash income, is considered to be inconsistent by many analysts.

Table A-1.--Selected equivalence scale values

Size and type of unit	Base: 1 person		Base: 2 adults, 2 children	
	CNSTAT	Poverty threshold	CNSTAT	Poverty threshold
1 person (all ages)	1.00	1.00	0.42	0.50
Under age 65	1.00	1.02	0.42	0.51
Age 65 and older	1.00	0.94	0.42	0.47
2 persons				
Under age 65	NA	1.32	NA	0.66
2 adults	1.62	1.31	0.69	0.66
1 adult	1.45	1.35	0.61	0.68
Age 65 and older	NA	1.19	NA	0.60
2 adults	1.62	1.19	0.69	0.60
3 persons	NA	1.57	NA	0.79
2 adults	2.00	1.58	0.85	0.79
1 adult	1.85	1.58	0.78	0.79
4 persons	NA	2.01	NA	1.01
2 adults	2.36	1.99	1.00	1.00
1 adult	2.21	2.00	0.94	1.00
5 persons	NA	2.37	NA	1.19
2 adults	2.69	2.34	1.14	1.18
1 adult	2.55	2.31	1.08	1.16
6 persons	NA	2.68	NA	1.35
2 adults	3.00	2.62	1.27	1.32
1 adult	2.87	2.57	1.22	1.29
7 persons	NA	3.04	NA	1.53
2 adults	3.30	2.94	1.40	1.48
1 adult	3.17	2.82	1.34	1.42

NOTE: NA means not applicable.

Table A-2.--Percentage composition of the low-income and poverty groups,
aged persons, 1994

	Low comprehensive income		
	CNSTAT equivalence scale	Poverty line equivalence scale	Official poverty measure
Total, age 65 and older	100	100	100
Sex			
Female	68	72	74
Male	32	27	26
Marital status			
Married, spouse present	39	25	22
Widowed	43	54	53
Female	38	48	48
Divorced	8	9	11
Never married	7	8	9
Type of unit			
Family member	53	37	34
Unrelated individual	47	63	66

Table A-3.--Selected low income and poverty thresholds, 1994

Size and type of unit	Implied low income thresholds, unadjusted income		Official poverty measure	
	Comprehensive income	Cash income	Poverty threshold	150% of poverty threshold
1 person (all ages)	$7,686	$8,988	$7,547	$11,320
Under age 65	7,686	8,988	7,710	11,565
Age 65 and older	7,686	8,988	7,108	10,662
2 persons				
Under age 65				
2 adults	12,490	14,606	9,924	14,886
1 adult	11,145	13,033	10,215	15,322
Age 65 and older				
2 adults	12,490	14,606	8,958	13,437
3 persons				
2 adults	15,403	18,012	11,929	17,894
1 adult	14,188	16,592	11,940	17,910
4 persons				
2 adults	18,101	21,167	15,029	22,544
1 adult	16,971	19,846	15,081	22,622
5 persons				
2 adults	20,637	24,133	17,686	26,529
1 adult	19,569	22,883	17,416	26,124
6 persons				
2 adults	23,043	26,946	19,802	29,703
1 adult	22,028	25,760	19,432	29,148
7 persons				
2 adults	25,348	29,642	22,180	33,270
1 adult	24,372	28,501	21,307	31,960

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