Introduction

Financial adequacy in retirement largely depends on Social Security, pensions, and savings—commonly referred to as the “three-legged stool” of retirement income. Correspondingly, the elderly who receive all of their income from Social Security benefits are recognized as being economically vulnerable. *Income of the Population 55 or Older, 2004* reports that 21 percent of beneficiary aged units 65 or older received all of their income from Social Security. Other publications using the same data source as *Income of the Population 55 or Older, 2004* have produced different statistics that appear contradictory. The primary purpose of this article is to explain how the choice of the unit of observation plays a role in our perception of the relative importance of Social Security benefits for the elderly.

The unit of observation may be a person, family, marital unit, or other grouping of persons. The unit of observation is important because it performs two functions. First, it is the unit that gets counted and is the base for computing percentages. For example, consider two families—a poor family of two persons and a nonpoor family of six persons. Half of the families (one of two) are poor, but only 25 percent of the persons (two of eight) are poor. Second, the unit of observation may also dictate the boundaries for the income being considered. A married person may have no personal income while his or her spouse does. Many would assume that spouses share income, making statistics based only on personal income undesirable when the objective is to consider the resources available. Others may want to know what income each person contributes to their unit, which would make statistics based on personal income preferred.

Data and Concepts

The Social Security Administration (SSA) has been producing two series of publications on the income of the elderly and near-elderly—*Income of the Population 55 or Older, since 1976*, and the *Income of the Aged Chartbook, since 1990*. Both series are derived from the Annual Social and Economic Supplement, also known as the March Supplement, to the Current Population Survey (CPS), conducted every March by the U.S. Census Bureau. For comparability with data in *Income of the Population 55 or Older, 2004* (SSA 2006), this article uses data on 2004 income from the March 2005 Supplement to the CPS.

Research about the income of the elderly often asks one of two types of questions: what income do elderly persons provide for themselves and those they live with, and what income is available as a resource for the elderly? Different units of observation can be...
useful for answering one question or the other but also
can be misleading if an unsuitable unit is chosen.

Statistics for persons are based solely on the
income and demographic attributes (age, sex, race, or
Hispanic origin) of each person; no spousal or other
family income is included. Statistics on person income
provide information on the resources an aged person
contributes to his or her living unit. These statistics
do not necessarily answer questions on the resources
available to an aged person.3

Statistics for the family income of persons are also
based on the demographic attributes (age, sex, race, or
Hispanic origin) of each person. Total income from all
family members (related through blood, marriage, or
adoption) is treated as another attribute of the person.
If any person in the family has income from a specific
source, the aged person is considered to be in a recipient
family. These statistics are designed to answer
questions on the resources available to an aged person.

Statistics for aged units treat each marital unit (mar-
nied couple or nonmarried individual) as one unit.4 A
nonmarried individual has only his or her own income
and demographic attributes. In SSA’s two data series
(cited earlier), aged units classified as “65 or older” are
defined as follows:

• nonmarried persons 65 or older, or
• married couples in which either
  — the husband is 65 or older, or
  — the husband is younger than 55 and the wife is
    65 or older.5

All other demographic characteristics for a married
couple, including the sample statistical weight, are
that of the husband. Income for the married couple is
the sum of both spouses’ income; if either spouse has
income from a specific source, the married couple is
considered to be a recipient unit. The aged unit focuses
on the income of the aged, whether they live with
other family members of not, while still recognizing
married couples as economic units that share resources
(Fisher 2005).

Statistics on aged-unit income are intended to be
flexible enough to answer a variety of questions, but
with a couple of qualifications. First, unlike person
statistics in which each person counts as a unit, aged-
unit statistics treat each married couple as one unit
and each nonmarried person as one unit. Interpreting
aged-unit statistics in the same way as person statistics
will emphasize the economic well-being of nonmarried
persons relative to that of married persons. Second,
aged-unit statistics exclude the income of other family
members, which may not provide a complete picture
of the resources available to the unit.

Table 1 illustrates the differences across units for
median total money income. Median income is higher
for aged units than it is for aged persons because aged-
unit income includes the combined income of two
persons for married couples. Median family income of
persons 65 or older is higher still because it includes
income from all family members, not just a spouse.
The number of units is the same for persons and family
income of persons because only the attribute of inter-
est (person versus family income) has changed. The
number of aged units is lower than that for persons
because a married couple is counted as one unit, not
two persons.

The Unit of Observation and the Relative
Importance of Social Security

The choice of unit of observation and the choice of
whose income to include as a resource have large
effects on the estimation of the sources and amounts of
income available to the elderly. Tables on the relative
importance of Social Security in Income of the Popula-

Table 1.
Median income, by unit of observation, 2004

<table>
<thead>
<tr>
<th></th>
<th>Persons 65 or older</th>
<th>Aged units 65 or older</th>
<th>Family income of persons 65 or older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median income (dollars)</td>
<td>14,710</td>
<td>20,481</td>
<td>28,698</td>
</tr>
<tr>
<td>Number of units (thousands)</td>
<td>35,213</td>
<td>26,865</td>
<td>35,213</td>
</tr>
</tbody>
</table>

SOURCES: Social Security Administration; author’s calculations using the March 2006 Supplement to the Current Population Survey.
NOTE: Standard errors can be computed using data from U.S. Census Bureau (2005).
tion 55 or Older and Income of the Aged have reported statistics for aged units. In addition to being a unit of observation, the aged-unit designation in this article bounds the resources being considered as income received by the individual or couple and excludes income from other, nonspouse family members.

As a point of comparison, official poverty statistics are calculated for persons on the basis of family income. The poverty statistic compares a person’s total family income to a poverty threshold on the basis of the number and ages of persons in the family. If the same methodology were used for the reliance measure, a person would be considered 100 percent reliant on Social Security if all of his or her family’s income came from Social Security. This differs from the current measure based on the aged unit in two ways: (1) the aged unit excludes income from family members other than a spouse (resource bounds); and (2) the aged-unit definition counts a married couple as one unit, just as a nonmarried person counts as one unit (unit of observation).

To illustrate the importance of the unit of observation, consider the following example based on three elderly persons (Table 2). Alice receives all of her income from Social Security benefits, while Bob and Cindy receive other income in addition to their Social Security benefits. If the person is the unit of observation and the income basis, then 33.3 percent of the elderly are 100 percent reliant on Social Security benefits. If the aged unit is the unit of observation and the income basis, the 100 percent reliance on Social Security statistic changes according to marital status:

- If all three persons are not married, then one of three units (33.3 percent) is completely reliant on Social Security (Example A);
- If Alice and Bob are married, then no units (0 percent) are completely reliant on Social Security (Example B); or,
- If Bob and Cindy are married, then one of two units (50.0 percent) is completely reliant on Social Security (Example C).

Finally, as illustrated in Examples D and E, if the person is the unit of observation and the family is the income basis, scenarios in which Alice is a relative of Bob or Cindy results in a 0 percent rate of complete reliance on Social Security; if Alice is a one-person family, the rate of complete reliance on Social Security is 33.3 percent.

In this example, the difference between the two measures with the person as the unit of observation comes solely from what income basis is considered. Comparing the cases for the aged unit in which all persons were nonmarried with the case in which only the completely reliant individual (Alice) was unmarried illustrates how counting a married couple as one unit places emphasis on the economic resources of nonmarried persons.

Using the aged unit as a unit of observation also requires additional choices as to which spouse’s characteristics are attributed to a married unit. In Income of the Population 55 or Older, the aged unit’s race and ethnicity are the husband’s race and ethnicity. The age of the married unit is the husband’s age, unless the husband is under age 55, in which case the married unit’s age is the wife’s age. Also, the sample weight applied to the married aged unit is the husband’s sample weight. Finally, a considerable number of spouses differ in age; men in particular are more likely to marry a younger woman, as shown by the estimate

<table>
<thead>
<tr>
<th>Example</th>
<th>Person income of person</th>
<th>Aged-unit income of aged unit</th>
<th>Family income of person</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Alice, Bob, and Cindy are not married and are not family members</td>
<td>33.3</td>
<td>33.3</td>
<td>33.3</td>
</tr>
<tr>
<td>B. Alice and Bob are married; Cindy is not married</td>
<td>33.3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>C. Bob and Cindy are married; Alice is not married</td>
<td>33.3</td>
<td>50.0</td>
<td>33.3</td>
</tr>
<tr>
<td>D. Alice and Bob are a nonspouse family; all are not married</td>
<td>33.3</td>
<td>33.3</td>
<td>0</td>
</tr>
<tr>
<td>E. Bob and Cindy are married; Alice is a nonspouse family member</td>
<td>33.3</td>
<td>50.0</td>
<td>0</td>
</tr>
</tbody>
</table>

SOURCE: Social Security Administration; author’s calculations.

NOTE: Alice receives all of her income from Social Security benefits. Bob and Cindy receive other income in addition to their Social Security benefits.
of 10.9 million married men aged 65 or older and only 8.4 million women aged 65 or older.6

Table 3 compares the percentages receiving income from various sources for the different units of observation and income bases. Married persons and couples are more likely to receive income from sources other than Social Security benefits than are nonmarried persons, except for public assistance.7

These differences based on sex and marital status are responsible for the remainder of the drop in complete reliance on Social Security benefits.8

**Conclusion**

The unit of observation has a large effect on the perceived well-being of the elderly. Earlier editions of the Social Security Administration’s publication *Income of the Population 55 or Older* that were published before the 2004 edition have only shown statistics on the relative importance of Social Security for aged units.9 But the aged unit focuses on the income of aged persons and married couples alone and not on that of the families in which they live.

Beginning with the expanded 2004 edition, *Income of the Population 55 or Older* will add statistics using the person as the unit of observation and treating

---

### Table 3.
Receipt of income of persons or units aged 65 or older, by marital status and sex, 2004

<table>
<thead>
<tr>
<th>Number (thousands)</th>
<th>All persons</th>
<th>Married</th>
<th>Nonmarried</th>
<th>Married couples</th>
<th>All aged units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>Earnings</td>
<td>18.0</td>
<td>25.1</td>
<td>15.7</td>
<td>17.9</td>
<td>36.9</td>
</tr>
<tr>
<td>Retirement benefits</td>
<td>91.0</td>
<td>92.1</td>
<td>90.2</td>
<td>90.5</td>
<td>91.7</td>
</tr>
<tr>
<td>Social Security</td>
<td>88.2</td>
<td>88.1</td>
<td>87.8</td>
<td>87.3</td>
<td>90.1</td>
</tr>
<tr>
<td>Public pensions</td>
<td>11.6</td>
<td>14.3</td>
<td>8.6</td>
<td>12.6</td>
<td>18.5</td>
</tr>
<tr>
<td>Private pensions</td>
<td>23.8</td>
<td>32.4</td>
<td>11.8</td>
<td>29.2</td>
<td>22.4</td>
</tr>
<tr>
<td>Asset income</td>
<td>55.6</td>
<td>64.1</td>
<td>61.7</td>
<td>47.8</td>
<td>67.4</td>
</tr>
<tr>
<td>Public assistance</td>
<td>3.5</td>
<td>1.5</td>
<td>1.7</td>
<td>4.7</td>
<td>2.4</td>
</tr>
<tr>
<td>Supplemental Social Security Income</td>
<td>3.3</td>
<td>1.5</td>
<td>1.5</td>
<td>4.7</td>
<td>2.2</td>
</tr>
</tbody>
</table>

**SOURCES:** Social Security Administration; author's calculations using the March 2005 Supplement to the Current Population Survey.

**NOTE:** Standard errors can be computed using data from U.S. Census Bureau (2005).

---

### Table 4.
Heavy reliance on Social Security of persons or units 65 or older, by unit of observation and income basis, 2004

<table>
<thead>
<tr>
<th>Unit of observation</th>
<th>Income basis</th>
<th>90 percent or more from Social Security</th>
<th>100 percent from Social Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person</td>
<td>Person</td>
<td>36.2</td>
<td>22.1</td>
</tr>
<tr>
<td>Aged unit</td>
<td>Aged unit</td>
<td>31.1</td>
<td>19.5</td>
</tr>
<tr>
<td>Person</td>
<td>Family</td>
<td>23.3</td>
<td>13.3</td>
</tr>
</tbody>
</table>

**SOURCE:** Social Security Administration; author’s calculations using the March 2005 Supplement to the Current Population Survey.

**NOTE:** Standard errors can be computed using data from the U.S. Census Bureau (2005). To calculate standard errors, the following base populations should be used: persons based on person income (33,679,000); aged units (25,891,000); and persons based on family income (34,418,000).
family income as an attribute of the person to provide additional information on the economic well-being of the elderly. The official poverty measure considers all income received by all members of the family when considering whether a person is in poverty; that is, the assumption is that family members can pool their resources, regardless of whether or not they do. Considering persons on the basis of family income would be consistent with current and recommended poverty measures and would provide an additional interpretation of the relative importance of Social Security benefits.

Notes

1 The Annual Social and Economic Supplement was formerly called the Annual Demographic Survey.

2 All calculations from the CPS are weighted.

3 The use of person income can be problematic. First, some sources of income may be jointly received by a married couple but allocated to only one spouse in survey data (for example, interest income from a jointly held account). Second, some surveys, including the CPS, ask a representative of the household (called the reference person) about each individual’s income. Preliminary research indicates that the reference person may report income received by one person as being received by another (for example, a husband is reported as having received both his and his wife’s Social Security benefits). Income for married couples or families is less likely to be distorted by these kinds of survey errors. Although SSA does not generally report statistics on person income in its Income of the Population 55 or Older series, such measures are included in this analysis to place SSA statistics in context with other reports that use person income. For examples, see Chapters 6 and 7 of Employee Benefit Research Institute (2006) and Whitman and Purcell (2006).

4 The aged unit is used in the Income of the Population 55 or Older and Income of the Aged Chartbook series.

Persons who are widowed, divorced, never married, separated, or married but living apart from their spouse are classified as nonmarried persons.

5 In both the Income of the Population 55 or Older and Income of the Aged Chartbook series, the age of a married couple is the age of the husband if he is 55 or older; otherwise, the age of the married couple is the age of the wife if she is 55 or older.

6 Similar choices would need to be made if the family or the household were the unit of observation. Using the family (or household) income of a person eliminates the need for these choices.

7 Pensions are the exception for women, most likely because nonmarried women may be receiving survivor’s benefits from a deceased husband’s pension.

8 In the CPS, 24.0 percent of married couples and 41.1 percent of nonmarried persons who reported 100 percent reliance on Social Security benefits were living with nonspouse family members.

9 The 2004 expanded publication is forthcoming and will be available on the Web only. Future editions (2006 and forward) will follow the expanded format.

References


