

## THE ECONOMIC STATUS OF THE ELDERLY: BEWARE OF THE MEAN\*

BY JOSEPH F. QUINN

*Boston College*

Current discussion contains widely contradictory statements about the economic status of the elderly in the United States. One can read that poverty among the elderly has been eliminated, and that it remains one of the most serious problems facing the country today. This paper discusses different ways of measuring economic status, and attempts to show how authors can reach such divergent conclusions, and support them with readily available data.

The U.S. Census data on personal income generally exclude in-kind benefits, and treat family size in a straightforward though unsophisticated manner. This paper shows that alternative treatments of these issues can have significant effects on indices of the economic status of the elderly. Whether or not in-kind benefits are included in the definition of income, which in-kind benefits are included and how they are valued change the conclusions dramatically. Even more important is whether the income data are presented by household or per capita (or with some intermediate divisor, using equivalency scales), since elderly households are the smallest of any age category.

This paper makes 3 points. One is that there has been significant progress in the economic status of the elderly over the past several decades, although the extent of the improvement is subject to debate. But the second is that summary statistics about the elderly, such as the above, may conceal more than they reveal. The diversity of the elderly is key. Beware of the mean. Finally, there is no one correct way to measure well-being. Different methodological approaches can be chosen and justified, and the choices made alter the conclusions significantly.

Over most of the past several decades, the prevalent view on the economic status of the elderly has been that they were in relatively poor economic shape, and that poverty and severe economic distress were widespread. The aged were thought to be dependent on fixed incomes, and therefore especially vulnerable to inflation. Current discussion of deficit reduction plans and the role of Social Security in reducing Federal expenditures has sparked particular interest in the well-being of the elderly. Many people vigorously oppose any cut in Social Security benefits because of the dire consequences predicted for the old and retired.

Robert Binstock (1983) claims that the traditional perceptions about the aged—that they are poor, vulnerable and in need of public support—have recently been reversed and replaced with new ones. The elderly, he states, are now often viewed as relatively well-off, and as politically savvy and well-organized. The elderly and the benefits bestowed upon them are frequently blamed for the financial crises of the Social Security system. Because of well-known demographic trends, their political power will grow and they may lobby and vote themselves even larger public benefits in the future. The aged may become, some say, an increasing burden on the workers of tomorrow and a threat to economic growth and intergenerational peace.

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Who is right? What is the economic status of the elderly? In this paper, I review the data that are available and the methodological difficulties in interpreting them. As we will see, there are facts aplenty for all. The aged are rich or poor, in poverty or out, improving or falling behind—depending on whom you ask. Researchers disagree both on the theoretical comparisons that should be made, and on the operational definitions of economic status needed to make them.

One goal of this paper is to convey a piece of advice. Never begin a sentence with “The elderly are . . .” or “The elderly do . . .” No matter what you are discussing, some are, and some are not; some do, and some do not. The most important characteristic of the aged is their diversity. The average can be very deceptive, because it ignores the tremendous dispersion around it. Beware of the mean.

The first part of this paper describes three general ways to evaluate the economic status of the aged. The data used are publicly available and easily obtained. The second part discusses the shortcomings of these data, and recent attempts to improve them. The basic thrust here is that traditional Census data treat family size inadequately and exclude certain sources of income (such as in-kind benefits) that are important determinants of economic status. Different assumptions about the appropriate treatment of noncash benefits and family size yield dramatically different conclusions on the relative economic status of the elderly.

## I. CURRENT ECONOMIC STATUS OF THE ELDERLY

Well-being is an extremely broad concept. It depends on mental and physical health, income, wealth, living arrangements, attitudes and expectations. Because many of these factors are difficult to measure and impossible to aggregate, economists have concentrated on one of them—income. Income is a useful indicator of economic status, which in turn is a key determinant of overall well-being.

But income is far from a perfect proxy. For certain groups, such as children, college students and medical interns, current income is a poor measure of well-being. For others, such as individuals in their prime working years, it may be fairly accurate. Much of the debate discussed below focuses on how useful measured income is as a proxy for the well-being of the aged and as a guide for public policy. Recent research suggests that traditional Census data miss important components—and components that have been growing rapidly—and may therefore be a deceptive indicator of progress. Others (including Beeghley (1984)) dismiss these recent refinements as misleading attempts to define away the problems of the poor.

The first response to the question, “How well off are the elderly?” should be, “Compared to what or to whom?” There are at least three answers—compared to others in society (a *relative* measure of economic status), compared to some fixed standard of adequacy (an *absolute* measure) or compared to the individuals themselves at an earlier time. Each has its advantages and disadvantages, and each will be discussed in turn.

## A. Relative Measures of Economic Status

The simplest relative measure is the proportion of total money income going to the aged. (Money income, as defined by the Census Bureau, includes all gross earnings, cash government transfer payments, income from assets, pension benefits, and other regular periodic sources of money income. It excludes non-cash transfers (such as food stamps, Medicaid, public housing and employee fringe benefits) and it ignores taxes. In 1984, elderly households (headed by a person over 64) comprised almost 21 percent of all households, yet had less than 14 percent of total money income—a disproportionately small share. (See Table 1.) This looks bad. On the other hand, elderly households were by far the smallest—fewer than 1.8 persons per household compared to a national average of 2.7. Elderly households contained only 13.8 percent of persons in households—and had 13.9 percent of aggregate income.<sup>1</sup> This looks good.

TABLE 1  
TOTAL MONEY INCOME DISTRIBUTION, BY AGE OF HOUSEHOLDER, 1984

Age of Householder (1)	Percent of Total Money Income (2)	Percent of Households (3)	Average Persons per Household (4)	Percent of Persons in Households (5)
15-24	3.8%	6.3%	2.33	5.4%
25-34	22.0	23.1	2.86	24.5
35-44	24.5	20.1	3.46	25.9
45-54	19.1	14.6	3.15	17.0
55-64	16.7	15.1	2.38	13.3
65+	13.9	20.9	1.77	13.8
Total	100.0	100.0	2.69	100.0

Source: U.S. Bureau of the Census (1986a), Series P-60, No. 151, Table 4.

Mean and median income statistics tell the same story. The mean household income for those in the 65+ category (\$18,279 in 1984) is a third lower than the overall mean. (See Table 2.) The elderly median (probably a better measure because of the asymmetry of income distributions) is 43 percent below the overall median. When we adjust for family size, however, the differences disappear. The mean income *per member* (column 3) in a 65+ household was almost identical to the population average, and higher than that of the three youngest groups.

The appropriate treatment of household size is the single most important adjustment to be made, as we will see in more detail below. Ignoring the number

<sup>1</sup>A household consists of all the people who occupy a housing unit. In the Current Population Reports, everyone lives in a household except persons living in military barracks, inmates of institutions and those living in group quarters (five or more people unrelated to the person in charge).

The householder is the person who owns or rents the housing unit. If jointly owned by a married couple, either spouse can be listed as householder. The household is classified by the age of the householder, and sometimes includes people in other age categories. For example, in 1984, there were 32.2 million people in households "headed" by a person over 64, and only 26.8 million (noninstitutionalized) persons aged 65 and over. (See U.S. Census (1986a), Tables 4 and 46.) More non-elderly persons live in elderly households than the reverse.

TABLE 2  
 MEDIAN AND MEAN INCOMES, BY AGE OF HOUSEHOLDER, 1984

Age of Householder	Median Income per Household (1)	Mean Income per Household (2)	Mean Income per Household Member (3)
15-24	\$14,028	\$16,644	\$7,151
25-34	23,735	26,178	9,147
35-44	29,784	33,389	9,646
45-54	31,516	36,003	11,437
55-64	24,094	30,516	12,806
65+	12,799	18,279	10,316
Total	\$22,415	\$27,464	\$10,207

Source: U.S. Bureau of the Census (1986a), Series P-60, No. 151, Tables 1, 4.

of people living on an income (dividing by one) seems inappropriate. But using *per capita* figures (dividing by *n*) over-adjusts by ignoring economies of scale. More sophisticated—and controversial—measures are discussed below.

Around these means and medians are entire distributions. Table 3 shows household income data for 1984. Elderly households are the most likely to fall at the low end of the spectrum. Nearly 40 percent had 1984 incomes under \$10,000, compared to 20, 13, and 12 percent of the next three younger groups. Elderly households are also much less likely to have high incomes—only 15 percent had 1984 incomes over \$30,000, a far cry from the 39, 52, and 49 percent of the next younger groups, and 36 percent for the population as a whole.

Older people differ dramatically from others in their sources and shares of income. As people age, they decrease their dependence on earnings and increase their receipt of retirement benefits dramatically. Shares and median levels of aggregate income for 1980 by age appear in Table 4. The medians dropped significantly with age, from nearly \$17,000 (1980 dollars) at age 55-61 to \$4,820 at age 80+. At all ages, the medians are more than twice as high for married couples as for the non-married, and slightly higher for non-married men than for non-married women. The poorest groups of all, non-married women, had median incomes in the \$4,000 to \$6,000 range after age 62. And this means that half of them fell below that.

The shares of income coming from various sources change significantly with age. Earnings dropped from 80 (age 55-61) to 4 percent (age 80+) of total income, while retirement benefits rose from 8 to 65 percent. Social Security was more important than pensions after age 65, and provided half of the aggregate income to those 80 and above. Income from assets rose from 8 to 25 percent of the total for the age categories shown. Public assistance and other sources were relatively unimportant in the aggregate.

In summary, the elderly, on average, look quite similar to the rest of the population in *per capita* terms. When categorized by household, however, they appear to be considerably behind. Among the elderly, there are significant

TABLE 3  
 PERCENT DISTRIBUTION OF MONEY INCOME, BY AGE OF HOUSEHOLDER, 1984

Age of Householder	Income Level							
	Under \$5,000	\$5,000 to \$9,999	\$10,000 to \$14,999	\$15,000 to \$19,999	\$20,000 to \$29,999	\$30,000 to \$49,999	\$50,000 to \$74,999	\$75,000 and Over
15-24	14	19	20	15	18	11	1	<sup>a</sup>
25-34	6	9	11	13	26	26	7	2
35-44	5	7	8	9	21	31	13	5
45-54	6	7	8	9	18	28	17	7
55-64	8	12	11	10	18	23	10	6
65+	12	27	18	13	14	10	3	2
Total	8	13	12	11	20	23	9	4

<sup>a</sup>less than 0.5 percent.

Source: U.S. Bureau of the Census (1985b), Series P-60, No. 149, Table 13.

**TABLE 4**  
**SHARES OF AGGREGATE INCOME AND MEDIAN TOTAL MONEY INCOME FOR AGED UNITS,**  
**BY AGE, 1980**

Percent of Income from:	Age					
	55-61	62-64	65-67	68-72	73-80	80+
Earnings	80	60	34	20	13	4
Retirement Benefits	8	25	44	56	59	65
Social Security <sup>a</sup>	2	12	28	38	44	50
Pensions <sup>a</sup>	6	12	16	16	13	13
Income from Assets	8	12	18	22	26	25
Public Assistance	1	1	1	1	2	1
Other	3	2	3	1	0	3
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Median Total Money Income</b>						
<b>of Aged Unit (1980\$)</b>						
<b>Total</b>	<b>\$16,880</b>	<b>\$12,800</b>	<b>\$9,780</b>	<b>\$7,810</b>	<b>\$6,650</b>	<b>\$4,820</b>
Married Couples	23,810	18,380	14,800	12,300	10,860	9,330
Non-married Men	10,320	7,270	6,310	5,720	5,520	4,990
Non-married Women	7,110	5,970	5,250	5,130	4,710	4,040

<sup>a</sup> The two components of retirement benefits do not sum to the total separate amounts, for certain combinations (Social Security and railroad retirement; government employee and private pensions) were not obtained from respondents who had both. These amounts were included in the retirement benefits column but excluded from the subcategories.

Source: Grad (1983), Tables 11 and 44.

differences by age, sex and marital status, and within any demographic cell there are wide dispersions around any simple summary statistic.

#### B. Absolute Measures of Economic Status

Relative measures of economic status imply that the elderly would be worse off if their real incomes remained unchanged as others' grew. Relative to others, they would be worse off. But they could still buy the same basket of goods that they could before. Relative to a fixed measure of adequacy, their status would be unchanged.

Interest in absolute measures of economic status has increased since the 1960s, when the Social Security Administration introduced its Poverty Index and the Census Bureau adopted it in its official publications.<sup>2</sup> The 1984 poverty thresholds for householders 65 and over are \$6,282 for a family of two and

<sup>2</sup>The Poverty Index is based on the Department of Agriculture's "economy" food plan, for "temporary or emergency use when funds are low" (Orshansky (1965)). The poverty threshold is simply three times the economy food plan, since an Agriculture Department survey in 1955 estimated that American families of three or more spent one-third of their after-tax money income on food. Separate poverty indices are calculated for different family sizes, number of children under 18, and, for one and two person families only, by age of householder (15-64 and 65+). For more detail, see U.S. Census (1986b).

\$4,979 for an individual.<sup>3</sup> As seen in Table 5, about 12 percent of those over 65 are in poverty—slightly less than the 14 percent of the total population who are poor. Among those over 64, the poverty rate is 72 percent higher for women than it is for men (15.0 vs. 8.7 percent), and is three times higher for blacks than for whites (31.7 vs. 10.7 percent).

TABLE 5  
SELECTED POVERTY RATES, 1984

Category	Percent in Households Below Poverty Level (1)	Percent in Households Below 1.25 Poverty Level (2)		
Total	14.4	19.4		
Age < 15	22.2			
15-24	17.0			
25-44	11.0			
45-54	9.4			
55-59	9.9			
60-64	10.9			
65+	12.4	21.2		
Over 64 Only:				
	Total	White	Black	Spanish Origin
Total	12.4	10.7	31.7	21.5
Males	8.7	7.2	25.9	20.6
Females	15.0	13.1	35.6	22.1
Unrelated Individuals	24.2	21.4	52.4	39.7
Males	20.0	17.3	43.4	40.3
Females	25.2	22.5	56.6	39.3
Below 1.25 Poverty level	21.2	19.0	45.6	34.7

Source: U.S. Bureau of the Census (1985b), Series P-60, No. 149, Tables 14, 16 and 17; (1986b), No. 152, Table 8.

A major problem with the poverty line concept is its dichotomous nature. Each individual is designated as above or below, but not by how much. Data are available on the proportion below 125 percent of the poverty line. Table 5 suggests that the elderly are more likely to be hovering *near* the poverty line than others. When the 1984 cutoffs are increased by 25 percent, the number of aged poor rises by 71 percent, compared to only a 35 percent increase in total poor.

<sup>3</sup>Poverty thresholds are not generous. The 1984 cutoff for a family of four (\$10,609) budgets only 81 cents per person per meal for food (assuming three meals per day), and about \$4.84 per person per day for *all* other expenditures. Beeghley (1984) sketches out reasonable expenditures for an American family, and claims that it would be almost impossible to stay within the non-food budget. A family at the poverty level, he claims, would be not just poor, but desperate. The food budget makes no allowance for food eaten away from home. The Agricultural Department has estimated that, realistically, only 10 percent of the families spending that little on food would be able to enjoy a nutritionally adequate diet (Orshansky (1969)).

Comparison of the overall poverty indices, then, may exaggerate the economic status of the aged.

Table 6 shows complete distributions of income to poverty threshold ratios for 1984. The elderly were less likely than the total population to be poor (under 1.00), and were considerably less likely to be very poor—below 0.75 or 0.50 of the appropriate poverty level. This is because of Government programs (such as Social Security and Supplementary Security Income) designed especially for the aged. On the other hand, the elderly were more likely to be near-poor. Nearly 30 percent of all persons over 64 were in households below 1.5 times the threshold, and 43 percent had incomes less than twice the poverty cutoff. In Table 6, the elderly appear to be more tightly distributed—less likely to be very poor, but more likely to be near-poor.<sup>4</sup>

TABLE 6  
RATIO OF INCOME TO POVERTY LEVEL, 1984

Ratio	All Persons	Persons 65 and Over
Under 0.50	5.5%	1.7%
Under 0.75	9.7	4.6
Under 1.00	14.4	12.4
Under 1.25	19.4	21.2
Under 1.50	24.3	29.1
Under 1.75	29.3	36.1
Under 2.00	34.6	42.6
Under 3.00	55.0	63.2
Under 4.00	70.8	76.4
Over 4.00	29.2	23.6

Source: U.S. Bureau of the Census (1986b), Series P-60, No. 152, Table 6.

The official poverty statistics have been criticized on many fronts. Some researchers (Borzilleri (1980), Paglin (1980), Smeeding, U.S. Census (1982)) argue that they overstate poverty because they ignore the value of in-kind benefits. Others (Beeghley (1984), Williamson (1979)) imply that they understate poverty by ignoring the “hidden poor” (poor elderly taken in by non-poor relatives) and by linking the standard to the cost of living, but not to society’s standard of living. Before turning to these adjustments, I mention briefly a third status

<sup>4</sup>These poverty data differ from the Census household money income data in Table 3 in two important ways. In the Census data, households are defined by the age of the householder. Elderly persons living with adult children are usually hidden as part of the younger household. The poverty statistics, however, categorize all noninstitutionalized persons by their own age. If some poor aged live with their non-poor children, they appear as non-poor elderly in Table 6 but do not appear as aged at all in Table 3. The other difference is that the poverty thresholds adjust for family size, whereas the Census income distribution statistics do not. Many of the poor elderly are single. They look worse on Table 3 than on Table 6, since the latter at least acknowledges that only one person is trying to subsist on this meager income.



comparison for the elderly—not to others, not to an absolute standard, but to themselves in previous years.

### C. *Replacement Rates*

Most people lose in income when they retire. In general, earnings are replaced by Social Security and (sometimes) employer pension income. The replacement rate concept is an attempt to gauge the magnitude of the income loss, or to show the extent to which retirement benefits replace lost earnings. It is designed as a measure of benefit adequacy.

Fox (1982) has discussed a number of different replacement rate concepts. The broadest is the ratio of initial postretirement to preretirement total income. But this ratio may be deceptively high as a proxy for long-run retirement well-being because it may include post retirement earnings. Fox defines retirement as the receipt of Social Security benefits, and almost half of his sample had some earnings in the first year of retirement.<sup>5</sup> Most will eventually withdraw from the labor force and lose this source of income.

A better indicator of long-run well-being is the ratio of Social Security and pension benefits to earnings. Fox defines typical preretirement earnings as average money earnings in the highest 3 of the previous 10 years, indexed up to the year of retirement. This definition decreases the impact of an exceptionally low or high earnings year just prior to retirement.

With this definition, Fox calculates that the median after tax replacement rate for married couples in 1976 was 55 percent. The first and third quartiles were 43 and 67 percent. The numbers were slightly lower for non-married men and women. Retirement does imply significant income loss.<sup>6</sup>

The replacement rate is a direct measure of the change in income accompanying retirement. Since it takes previous status as given, it may not be a good index of well-being or even change in well-being. A poor couple losing 20 percent of their income may suffer more than a rich couple losing a third. In addition, it considers only the first year of retirement. An individual who retires at 62 rather than 65 will lower his replacement rate because Social Security benefits are reduced by 20 percent. Yet if the early retirement is voluntary, he is presumably better off than if he waited 3 more years. Replacement rates also ignore inflation protection after retirement. If some of the retirement income is from private sector pensions, and if these are inadequately indexed, then the initial replacement rate will exaggerate the level of well-being in the future.

<sup>5</sup>The earnings phenomenon explains an odd result reported by Fox. For non-married people, those without pensions had higher replacement rates than those with pensions. The explanation is the greater propensity of those without pensions to work, at least part time, after receipt of Social Security benefits.

Fox's replacement rate estimates are based on the Social Security Administration's Longitudinal Retirement History Study (RHS). For a detailed description of the RHS, and a number of early studies using it, see Irelan (1976).

<sup>6</sup>The replacement rates tend to decrease slightly as the preretirement earnings level rises. This occurs because the Social Security benefit structure favors lower income workers. But this effect is largely offset by the fact that the probability of pension receipt rises dramatically with earnings level; for example, from 4 to 67 percent for men in the first and fifth income quintile (See Fox (1982), Table 7.)

## II. RECENT DEVELOPMENTS

The measures of economic status discussed thus far are all based on traditional concepts of money income. They exclude other sources of income (such as in-kind benefits), and ignore wealth, ownership of durable goods, leisure and frequently taxation. They tend to treat family size in an unsophisticated way, either ignoring it altogether or expressing income in per capita terms. Recent research has expanded the concept of income and has developed scales of family need based on household size. In this section, I describe these developments, and focus on how they may alter our view on the economic status of the aged.

### A. *In-Kind Benefits*

Government transfers take two basic forms. Many programs, such as Social Security and Supplementary Security Income (SSI), provide direct cash benefits. These sources are counted under the standard Census money income definition. But many other sources of aid are provided in-kind, such as Medicaid, Food Stamps and subsidized housing programs. These in-kind benefits have been growing dramatically. The Census Bureau (1984b) estimates that the major means-tested transfer programs have grown from \$23 billion to \$77 billion (both in 1983 dollars) between 1965 and 1983—more than a 3-fold increase in real terms.<sup>7</sup> Over the same period, the proportion of the total provided in-kind has nearly tripled—from 24 to 64 percent. While means-tested cash assistance rose from \$18 billion (1965) to \$26 billion (both in 1983 dollars), means-tested *non-cash* benefits increased from less than \$6 billion to nearly \$50 billion. In addition, in-kind Medicare expenditures (which are not means tested) rose from 0 to over \$55 billion by 1983.

It is much easier to acknowledge non-cash benefits than to evaluate and quantify them. Timothy Smeeding (U.S. Census (1982)) describes three basic means of evaluation: market value, cash equivalent value and poverty budget share. The first is the easiest and most popular. The *market value* of a non-cash benefit is equal to what it would cost an individual to purchase it in the market; for example, the bonus value of food stamps, the difference between market and subsidized rent, or the insurance equivalent of Medicare or Medicaid coverage.<sup>8</sup> This usually approximates the actual cost to the government, although the two can differ if the government is a particularly efficient or inefficient supplier.<sup>9</sup>

<sup>7</sup>These Census data include those food, housing and medical care benefits that go only to families with low enough income and assets to qualify. Smeeding estimates that these three categories include about 88 percent of all public and private means-tested in-kind benefits. (See U.S. Census, (1982), Tables 1 and 2.)

<sup>8</sup>In the case of medical benefits, it would make no sense to include in income the market value of the medical services actually received. One would look “richer” the greater the medical problems encountered. A much more reasonable approach is to view the coverage *ex ante*, and treat it as government provided insurance. This implies that the right to medical care has a value, even if none is consumed. In practice, the insurance value of Medicare or Medicaid is calculated as the total expenditure divided by the eligible population. See Moon (1977) and U.S. Census (1982), Chapter 5 for details on valuation techniques.

<sup>9</sup>Smeeding (U.S. Census (1982), p. 37) estimates that government cost exceeds market value by 8 percent for the Food Stamp program, by 0 to 10 percent for medical care, and by 17 to 40 percent for in-kind housing transfers.

Economists argue that the market value of an in-kind benefit is an upper bound of the true value to the recipient. It may be worth much less. Recipients would always prefer (or be indifferent to) the market value in cash. With this cash, they could then purchase the same in-kind benefit, or, more likely, something better. If they would prefer the full market value in cash, they would be indifferent between the in-kind benefit and some smaller amount in cash.

The *cash equivalent value* is the minimum amount of cash the recipient would accept in lieu of the in-kind benefit. Though theoretically precise this amount is difficult to determine in practice. Smeeding's approach is to estimate the normal expenditure on the item in question by equivalent non-subsidized households. If a family has \$5,000 in money income, \$2,000 in (market value) Medicaid coverage, and \$1,000 in Food Stamps, they are compared to equivalent nonsubsidized families with \$8,000 in money income. If the latter average only \$1,300 on medical coverage, this is the value attributed to the Medicaid coverage, since that is the amount of cash it has released. Whenever the actual expenditure is higher than the subsidy (e.g. the unsubsidized family spends \$1,600 on food), the noncash benefit is evaluated at full market value.

The third valuation technique, the *poverty budget share*, limits the value of a benefit to the expenditure on the good implied in the poverty threshold budget.<sup>10</sup> "It assumes that in-kind transfers in excess of these amounts are not relevant for determining poverty status because an excess of one type of good (e.g. housing) does not compensate for a deficiency in another good (e.g. medical care)" (U.S. Census (1982), page vi). As an extreme example, a family with no income whatsoever might be pulled above the poverty line if they lived in public housing with a market rental value above their property threshold. Yet this housing "income" cannot be used to purchase food or medical care. The poverty share approach avoids such anomalies.

In theory, a value for all the in-kind benefits in the economy could be attributed to their recipients, and the entire income distribution re-estimated. Many of these benefits, such as fringe benefits and the imputed rental value of owner-occupied homes, are found in the private sector.<sup>11</sup> In fact, however, such economy-wide studies have not yet been done. Researchers have concentrated on the low-income population, and on the impact of non-cash benefits on poverty. Most of these studies agree that their inclusion reduces poverty, but they differ dramatically on how much.

The Census Bureau (1984b) presents six sets of estimates for 1983, using the three valuation techniques discussed above, and then including or excluding the

<sup>10</sup>Since the poverty thresholds do not specify detailed components, except food, the amounts are deduced from the actual budgets of families *without* in-kind benefits near the poverty line. These proportions were obtained from surveys undertaken in 1960-61, when in-kind benefits were relatively unimportant. (See U.S. Census (1982), page vi.)

<sup>11</sup>The Census Bureau estimates that 89 percent of all American households received at least 1 non-cash benefit in 1983. Over 81 percent received non-means tested benefits (Medicare or employer- or union-provided pension or group health insurance plan) and 17 percent received a means tested noncash benefit (food stamps, subsidized school lunches, subsidized housing or Medicaid). See U.S. Census (1985a), pp. 1-4.

TABLE 7  
PROPORTION IN POVERTY WITH AND WITHOUT VARIOUS IN-KIND BENEFITS, 1983

	Excluding In-kind Benefits	Including In-Kind Benefits		
		Poverty Budget Share	Cash Equivalent Value	Market Value
All persons				
Food and housing only	15.2	13.9 (-9%)	14.0 (-8%)	13.8 (-9%)
Food, housing and medical (excl. institutional care)	15.2	12.9 (-15%)	13.2 (-13%)	10.5 (-31%)
Food, housing and medical (incl. institutional care)	15.2	12.9 (-15%)	13.0 (-14%)	10.2 (-33%)
Elderly (65+)				
Food and housing only	14.1	12.3 (-13%)	12.6 (-11%)	12.3 (-13%)
Food, housing and medical (excl. institutional care)	14.1	9.1 (-35%)	9.5 (-33%)	3.7 (-74%)
Food, housing and medical (incl. institutional care)	14.1	9.1 (-35%)	8.7 (-38%)	3.3 (-77%)

Source: U.S. Bureau of the Census (1984), Technical Paper 52, Tables D and 1.

institutional care expenditures of Medicaid.<sup>12</sup> Table 7 shows the impact of in-kind benefits on 1983 poverty rates, for those in elderly (65 and over) and in all households.

A number of interesting conclusions emerge. First, the impact of non-cash food and housing benefits is relatively modest. Overall, they reduce the size of the poverty population by less than 10 percent. Medical coverage is much more important, and the valuation technique makes a big difference. If institutional care is included, and medical care (the insurance equivalent) evaluated at full market value, the overall poverty rate drops by 33 percent. The drop is more modest (14–15 percent) when the cash equivalent or poverty budget share evaluations are used.

For the elderly, these methodological decisions are crucial, primarily because of in-kind medical benefits. If the full market value of these is added to income, along with food and housing benefits, the elderly poverty rate plummets by almost four-fifths—to 3.3 percent. Without institutional care, the elderly poverty population still drops by three-quarters. But these insurance expenditures are larger than a family near the poverty line would spend if given cash, and larger than the budget share implicit in the poverty threshold. When the more reasonable cash equivalent estimate is used, the poverty rate decreases to 8.7 percent, still a drop of nearly 40 percent.

The impact of including in-kind benefits is much larger on the elderly poverty statistics than for the rest of the population. This suggests that the money income

<sup>12</sup>The main reason for including Medicaid institutional care benefits is that all enrollees are covered if need be. On the other hand, it can be argued that this care is, to some extent, a public good that benefits the public at large. The expenditure then, should not be allocated over just the actual recipients. In addition, those eligible for Medicaid institutional care forfeit most of any other cash transfer (such as Social Security, SSI, pensions, etc.) that they might be receiving. Much of the benefit, then, is offset by equivalent income losses elsewhere. (See U.S. Census (1982), pp. 53–55.)

figures in the first part of the paper and the poverty statistics derived from them may understate the relative economic well-being of the elderly. But by how much is open to considerable debate.<sup>13</sup>

### B. *From Income to Consumption*

Danziger, van der Gaag, Smolensky and Taussig (DvST) argue that well-being is more closely tied to consumption than to income, and suggest that traditional Census data may understate the economic status of the aged. Compared to the non-elderly, at any given level of family money income, the elderly on average

- (1) pay less in taxes
- (2) own more assets
- (3) live in smaller households
- (4) receive more intra-household transfers
- (5) receive more extra-household transfers
- (6) receive more in-kind benefits
- (7) have more leisure time, and
- (8) have lower working expenses.

In their research, they adjust data from the 1972–73 Consumer Expenditure Survey (CEX) for the first four factors, for elderly and non-elderly alike, and analyze how relative economic status is affected. The second four factors are ignored in their study. A major advantage of their work is that the adjustments are made for the entire population, not just the poor or the aged. A major disadvantage is that in-kind benefits are not included.

<sup>13</sup>Paglin (1980) used CPS micro data from 1975, and adjusted for underreporting of income, income sharing between unrelated household members, and Social Security taxes before considering non-cash benefits. These three adjustments reduced the poverty rate from 12.3 (the official Census figure for 1975) to 10.0 percent. He then added the full market value of non-cash food, housing and medical care benefits. He concludes that only 3.6 of the population were actually in poverty in 1975—71 percent less than official estimates, and 64 percent below his own adjusted figures. Although Paglin did not disaggregate his sample by age, I presume that the impact on the elderly would be even larger (as later U.S. Census data indicate), since many in-kind programs are specifically targeted at this group.

Borzilleri (1980) used aggregate Census data for 1978 to answer the same question—how do in-kind benefits affect the low income population. He found that the allocation of the full market value of food, housing and medical care increases the mean incomes of elderly families and unrelated individuals by 14 and 32 percent, respectively. Nearly all of the change is due to Medicaid and Medicare. The “poverty” comparisons are made using the Bureau of Labor Statistics Retired Couple Budget for a low standard of living, rather than the Census poverty thresholds. Borzilleri estimates that the proportion of single individuals over 64 with inadequate incomes, defined in this way, drops from 45 to 5 percent when non-cash benefits are included. For couples, the proportion drops from 21 to 2 percent. Since these adjusted BLS budgets are higher than the official poverty thresholds, even fewer aged would be left below that standard. The study concludes that “(i) inclusion of in-kind benefit income virtually eliminates ‘poverty’ among the aged.” (See Borzilleri (1980), p. ii.) This dramatic result occurs primarily because the full market value of Medicare and Medicaid coverage (insurance) was included as income, a procedure that many argue is inappropriate.

Borzilleri acknowledges some shortcomings of this research. In-kind benefits are added to the incomes of the low-income or aged population, but not to the incomes of the general population. In addition, the thresholds are dichotomous in nature. Many of the elderly hover just above these limits, as we saw in Table 6. A one dollar increase may put a family over the line without changing its standard of living at all. As Borzilleri (p. 28) states, “(t)he poverty line is a definition of inadequacy, but clearly ‘not being poor’ and having a reasonable standard of living in retirement are not equivalent terms.”

TABLE 8  
MEAN INCOME AND CONSUMPTION, BY AGE OF HEAD OF CONSUMER UNIT, 1973

	Head less Than 65	Head 65 or Over	Ratio of Elderly to Non-elderly Index
Income before taxes (YBT)	\$16,471	8,604	0.52
Income after taxes (YAT)	14,217	7,997	0.56
Adjusted consumption (C)	9,807	5,794	0.59

*Source:* Danziger, van der Gaag, Smolensky and Taussig (1984b), Table 7.4. These averages use consumer unit weights (see footnote 14).

DvST begin with a standard measure of before-tax income (YBT), except that it includes the bonus value of food stamps. Elderly households had about half the average (mean) income of units under 65. (See Table 8.) When after tax income (YAT) is considered, the ratio rises from 0.52 to 0.56 since the elderly tend to have lower average tax rates.

The authors then estimate annual *consumption* for each household from detailed questions in the CEX on out-of-pocket expenditures. A major contribution is the addition to consumption of the service flows from consumer durables. This adjustment is extremely important when discussing the aged, because at any given income level, the elderly are more likely to own durables, such as a house. Ignoring the implicit income or consumption from these durables underestimates the well-being of the aged population. As seen in Table 8, the average consumption of the elderly household was estimated to be 59 percent of the nonelderly average in 1973.<sup>14</sup> This is slightly higher than either of the income measures.

The adjustments for taxes and consumption result in a modest change in relative well-being. The ratio of the elderly to nonelderly means rises from 0.52 to 0.59, and the dispersion of both age-specific distributions decreases. The next adjustment is much more important, and swamps the combined impact of the others.

### C. Household Size

As we saw in Table 1, elderly households are smaller than those of any other age cohort. Elderly household incomes, therefore, are supporting fewer people, leaving more for each member. We should adjust for these differences, but how? Table 9 shows the impact of several options.

The calculations in Table 8 make no adjustments—the household income and consumption figures are implicitly divided by 1. The simplest adjustment is to divide by  $n$ —to put all data in per capita terms. When this is done, and person

<sup>14</sup>In Table 8, each household is treated as one observation in calculation of the means, regardless of its size. DvST argue that if one is interested in inequality among individuals, it is more appropriate to assign an index of well-being (the household's income or consumption) to *each individual*, and then take the mean of all the individuals. This counts each household's entry  $n$  times if there are  $n$  members. Since larger households are on average richer, this raises the means, but more so for the elderly than for others. When this is done, the consumption ratio rises from 0.59 to 0.61.

weights are used, (see footnote 14), the average person in a 65+ household was *better* off than the average person in the rest of the households—7 percent better off using after tax income, and 12 percent ahead using adjusted consumption. But this adjustment exaggerates the well-being of the elderly, because it ignores the economies of scale possible in larger households. What is needed is a divisor somewhere between 1 (household) and  $n$  (per capita).

DvST point out that equivalency scales for various household sizes are implicit in the Social Security Administration's Poverty Indices. In 1984, an unrelated individual over 65 with money income of \$4,979 was exactly at the poverty threshold, as was a couple over 65 with \$6,282. The couple is implicitly being treated as though the household contained 1.26 ( $6,282/4,979$ ) persons. In analogous fashion, equivalency scales (values of  $n^*$ ) can be derived for all family sizes and compositions. DvST did this for 1973, and applied them to the CPS data. The results (Table 9) suggest that the elderly on average are slightly worse off than others—9 percent using income and 5 percent using consumption. The differences are larger (19 and 15 percent) when the consumer unit weights are used. And these are 1973 data, and exclude the value of in-kind benefits. Current data and more comprehensive concepts of income and consumption would undoubtedly improve the relative status of the aged.

TABLE 9  
RELATIVE INCOME AND CONSUMPTION MEASURES, ADJUSTED FOR  
FAMILY SIZE, BY AGE OF HEAD OF CONSUMER UNIT, 1973  
(ENTRY IS RATIO OF ELDERLY TO NON-ELDERLY INDEX)

	Consumer Unit Weights	Person Weights
Income after taxes		
Household (YAT/1)	0.56	0.58
Per capita (YAT/n)	0.92	1.07
Poverty scale (YAT/ $n^*$ )	0.81	0.91
Adjusted consumption		
Household (C/1)	0.59	0.61
Per capita (C/n)	0.96	1.12
Poverty scale (C/ $n^*$ )	0.85	0.95

Source: Calculation from Danziger, van der Gaag, Smolensky and Taussig (1984b), Tables 7.4 and 7.5.

DvST summarize their findings as follows:

- (i) if no adjustments for family size are made, elderly consumer units were considerably worse off than others economically, whether income or consumption measures are used;
- (ii) they were about as well off as non-elderly if per capita figures are used;
- (iii) the results based on equivalency scales are between these two extremes; and
- (iv) the treatment of the size of the consumer unit is extremely important in determining the well-being of the elderly.

Unfortunately, there is no one “correct” adjustment. There are at least as many opinions as researchers. And some reject these size adjustments altogether, because household size is endogenous—a matter of personal choice. As Lebergott (1976, pp. 33–43) points out, an individual’s per capita income decreases when he or she marries someone with less income. And a family’s per capita income decreases when a child is born. But who would argue that their level of well-being has decreased, if these changes are voluntary? The use of equivalence scales ( $n^*$ ) is less extreme, because the scales rise more slowly than family size, but the objection remains valid. Nonetheless, family size is an important component of nearly all of our tax and transfer programs, and is important in determining economic status as well.

### III. SUMMARY AND CONCLUSION

Well-being is a complex concept, and will never be captured by a single statistic. Even economic well-being—a considerably narrower concept—is difficult to measure. Most of our information on economic status comes from government statistics based on a restrictive definition of income. From these data come statistics—means, medians, Gini coefficients and quintile breakdowns—designed to summarize an otherwise overwhelming amount of individual information. These statistics ignore and conceal a great deal of information. That is both an advantage and a disadvantage.

In this paper, I have discussed the official income and poverty statistics and outlined some of their deficiencies. They generally ignore in-kind benefits, which are important determinants of well-being. Researchers have attempted to quantify the impact of the omission of these non-cash benefits on the poor and on the aged. They agree on the direction of the change, but not on the magnitude.

Official income statistics ignore taxes, assets, consumption potential and often household size. Danziger, van der Gaag, Smolensky and Taussig have shown that these omissions (particularly household size) can dramatically change relative economic status among groups, particularly the elderly.

And there are additional issues to cloud the picture further. Some households have more leisure time than others. This adds to their well-being, but appears nowhere in the data. This omission may understate the relative well-being of the elderly, who are more likely to be retired. And what about inter- and intra-family transfers of cash, goods (largely food and housing), and time? Morgan (1983) and Lampman and Smeeding (1983) have pieced together estimates of these transfers, and find them to be large, though extremely difficult to estimate precisely. The aged are both donors and recipients of these transfers, and the net impact is unclear.

And what about voluntary decisions that lower indices of well-being? A marriage or a birth can lower per capita family income. Government transfer programs may permit older people to move out and to live alone, instead of staying with their children. Although this independence may be greatly valued (hence the voluntary exit), it may show up as an increase in poverty if the elderly unit falls below the threshold while the younger household did not. The statistics indicate a decrease in well-being that did not occur. Voluntary retirements and



accompanying income losses may do the same thing. Individuals decide that they prefer to be retired and poorer. The income statistics indicate one thing about well-being; the revealed preference of the individual suggests another.

Warlick (1982) has estimated that approximately half of the aged poor eligible for Supplementary Security Income (SSI) are not enrolled. Although many of these are eligible for small amounts, perhaps not worth the effort, some could more than double their incomes, yet do not. Some of this may be involuntary, due to ignorance of the programs or enrollment procedures. But some is by choice. Does it make sense to count as poor people who choose not to enroll in a program that would pull them out of poverty? It may not, but we do.

Finally, there is the time interval over which economic status is measured. The most common interval—and that used in the government statistics—is the year, although this is completely arbitrary. One low income household may have been poor for years, while another is poor only temporarily, because of a transitory loss of income. Though these two families may have identical incomes during the calendar year, their abilities to consume and their levels of well-being may be quite different. Yet they are treated as identical in the statistics.

Using 10 years of data (1969–78) from the Panel Study of Income Dynamics, Greg Duncan (1984) and colleagues have analyzed the importance of the accounting period. From their panel, they estimate that less than 6.8 percent of the population were poor in 1978.<sup>15</sup> But nearly four times as many people (24 percent) were poor at some time during the decade 1969–78. Only 5 percent were poor for five or more years, even fewer (3 percent) were “persistently poor” (8 or more years), and less than one percent were poor all 10 years.<sup>16</sup> So poverty is both more and less prevalent than the official statistics indicate; more, because many more people have had a recent bout with poverty, and less, because few of the poor are there permanently. There is a great deal of cycling on and off the rolls, even if aggregate the Census statistics remain virtually unchanged.<sup>17</sup>

#### A. *Recent Progress*

Despite their shortcomings, official income and poverty statistics provide a useful guide to changes in the relative economic status of the elderly over time. They tell a story of progress. Table 10 (column 1) compares the median income

<sup>15</sup>These estimates are based on the Census definition of money income, and ignore in-kind benefits. The estimate is considerably lower than the official 1978 figure of 11.4 percent. Duncan suggests “that income might be reported more completely by families in the Panel Study, and the resulting increase in Panel Study reported incomes would lead to lower estimates of the incidence of poverty.” (Duncan (1984), p. 40.) The absolute numbers are not important here. The point is the relative impact on poverty of different accounting periods.

<sup>16</sup>Duncan *et al.* also find that the characteristics of the persistently poor (8 or more years during 1969–78) are very different than those of the temporarily poor (1 or 2 years). The persistently poor are much more likely to be female, elderly, black, or disabled, and living in the country or the South. See Duncan (1984). Tables 2.1 and 2.2.

<sup>17</sup>In earlier work, Williamson and Hyer (1975) found that the correlation between the traditional poverty status and status under longitudinal measures defined over four-year periods was less than 0.40. Burkhauser and Wilkinson (1983) find much less variation over time when status is measured by wealth than when annual income is used. Wealth is similar to an average income over a number of years in that it is less responsive to transitory income fluctuations.

TABLE 10  
SELECTED MEASURES OF RELATIVE WELL-BEING, 1966 TO 1984

Year	Median Family Income: Elderly Head/ All Families (1)	Poverty Rate: Elderly (2)	Poverty Rate: All Persons (3)	Poverty Ratio Elderly/All (4)	1.25 Poverty Ratio Elderly/All (5)
1967	0.49	29.5	14.2	2.08	NA
1968	0.53	25.0	12.8	1.95	NA
1969	0.51	25.3	12.1	2.09	2.02
1970	0.51	24.6	12.6	1.94	1.93
1971	0.53	21.6	12.5	1.73	1.78
1972	0.54	18.6	11.9	1.56	1.70
1973	0.53	16.3	11.1	1.47	1.70
1974	0.57	14.6	11.2	1.30	1.54
1975	0.59	15.3	12.3	1.24	1.44
1976	0.58	15.0	11.8	1.27	1.50
1977	0.57	14.1	11.6	1.22	1.47
1978	0.57	14.0	11.4	1.30	1.48
1979	0.58	15.2	11.7	1.30	1.51
1980	0.61	15.7	13.0	1.21	1.42
1981	0.64	15.3	14.0	1.09	1.31
1982	0.69	14.6	15.0	0.97	1.17
1983	0.69	14.1	15.2	0.93	1.10
1984	0.69	12.4	14.4	0.86	1.09

*Sources:* Danziger, van der Gaag, Smolensky and Taussig (1984a), Table 1; U.S. Bureau of the Census (1986b), Series P-60, No. 152, Tables 1 and 2.

for families headed by someone 65 and over to the median income for all families.<sup>18</sup> The ratio has increased dramatically in 16 years, from 0.49 in 1967 to 0.69 in 1984. And this has occurred, as Hurd and Shoven (1985) point out, during a period in which the work effort of older men declined rapidly. Over the past two decades, the labor force participation rate of men over 64 has dropped from about 1 in 3 to less than 1 in 5. This relative economic progress of the elderly was due to growth in transfer programs targeted at the aged and the general weakness of the economy (affecting those still working) during the 1970s and early 1980s.

Poverty statistics, which adjust for family size, tell the same story. While the overall poverty rate is slightly higher now than it was in 1967, the incidence of poverty among the elderly has fallen from near 30 to 12 percent. Ten points of this drop occurred between 1970 and 1974, when Congress legislated large increases in real Social Security benefits. Column 4 shows the ratio of elderly to overall poverty incidence. The ratio has dropped from near 2 in the mid-1960s to well below 1 today. This is one area of government intervention where "throwing money at a problem" has worked. Though poverty among the aged has not been eliminated, significant progress has been achieved.

<sup>18</sup>A household includes all persons who occupy a common housing unit. A household could have only 1 member. Families, on the other hand, are groups of 2 or more, related by birth, marriage or adoption, who live together. The data from Danziger, van der Gaag, Smolensky and Taussig are for families.

Those who emphasize in-kind benefits reject the statistics in Table 10, especially the official poverty statistics that show progress through the 1960s but stagnation and deterioration since then. When non-cash transfers are considered, Paglin (1980, p. 60) argues, “(t)he downward trend in poverty has been maintained over the whole period: in the first half largely by increased earnings and cash transfers, while in the second half by increased transfers in-kind.” This is true for the aged as well, particularly when health care coverage is considered. As we have seen, however, there are serious disagreements over the appropriate valuation of these benefits, making precise estimation of current poverty levels a matter of great debate.

## B. Conclusion

This paper has three main points. One is that significant progress has been made on the relative economic status of the elderly. Whether measured in relative or absolute terms, the average elderly household has a higher level of economic well being than 20 or 30 years ago. The ratio of elderly to non-elderly median family income has risen, and the elderly poverty level has fallen. The progress may be more or less than the official statistics imply; more, if one emphasizes the recent growth in in-kind benefits that the Census data generally exclude, or less, if one realizes that the same real income may provide a lower level of well being if the general standard of living has risen over time.

The second point is that summary statistics, including those mentioned in the previous paragraph, conceal more than they reveal. The overall picture of the aged in America has improved, primarily because of government cash and in-kind transfer programs. But around the corners of this picture remain pockets of extreme distress. Despite an overall elderly poverty rate of 12 percent, nearly a quarter of all elderly unrelated individuals were poor in 1984, as were nearly a third of all aged blacks. (See Table 5.) Well over half of all older black women living on their own fell below the threshold—and many far below it. The total poverty gap—the sum of money required to bring all poor households up to their meager poverty thresholds, exceeded \$45 billion in 1984 (U.S. Census (1985b), Table 19)). And these data exclude the institutionalized, who are often much worse off than those we study. The task is far from complete.

The final point is methodological. There is no correct way to measure economic well being. The researcher must decide how to treat household size, in-kind benefits, services from durable goods, inter- and intra-family transfers, and taxes. Decisions on the valuation of leisure and the time unit of analysis must be made. As we proceed along the decision tree, movement along many branches can be justified. This paper has shown that the choice of branches makes a great deal of difference in the final conclusion. This is why we can read today that poverty is dead in America, and also that it is one of the major problems we face. We always knew that the Devil could quote Scripture. It is now clear that he (or she) can quote Census data as well.

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