CENTER for RETIREMENT RESEARCH at BOSTON COLLEGE

# ELDERLY POVERTY IN THE UNITED STATES IN THE 21ST CENTURY: EXPLORING THE ROLE OF ASSETS IN THE SUPPLEMENTAL POVERTY MEASURE

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**Abstract**

Official estimates of elderly poverty do not take into account either the medical needs of the elderly, which can be quite extensive, or the assets at their disposal, which may also be extensive. The new Supplemental Poverty Measure (SPM) explicitly takes into account medical needs but has been criticized for not concomitantly taking into account asset portfolios. In this paper we consider both jointly, using an approach adapted from a recent National Academy of Sciences report recommending methods for measuring poverty and medical risk while taking account of assets. We use longitudinal data from the *Health and Retirement Study* (HRS).

The paper found that:

- Confirming previously published research, the elderly have considerably higher poverty rates under the SPM than under the official measure, and this disparity is driven by the SPM's treatment of medical out-of-pocket expenditures.
- SPM poverty rates are considerably lower than actual SPM rates when an annuitized portion of liquid assets is incorporated into the measure of resources.
- When both liquid *and* near-liquid assets are considered, trends and levels of SPM poverty rates are extremely close to official poverty rates.
- SPM poverty rates would be even lower than official rates if all assets, including reverse mortgages on homes, were considered, though this might be considered a less "reasonable" approach by some observers.
- Incorporating assets has differing effects on pre-existing disparities in poverty rates: it exacerbates inequalities by race and marital status but reduces inequalities by age and has little effect on inequalities by gender.

The policy implications of the findings are:

- Government agencies should consider examining the role of assets when assessing the trends and levels of poverty rates among older Americans.
- Promoting savings and asset ownership among younger Americans is likely to pay substantial dividends with respect to the economic well-being of older Americans in the future.

## Introduction

As measured by the official poverty measure (OPM), elderly poverty in America has plummeted over the past 50 years, from over 35 percent in 1959 to about 9 percent today (DeNavas-Walt, Proctor, and Smith 2014). This decline is largely credited to the Social Security program, especially its expansion and indexing to inflation in the 1970s (Englehardt and Gruber, 2006). But in 2011, the U.S. Census Bureau released its Research Supplemental Poverty Measure (SPM), the culmination of decades of work attempting to improve the official OPM that the nation has relied on to assess trends in poverty for over five decades (Short, 2011). The new measure makes a number of methodological changes relative to the OPM that most poverty researchers consider improvements. But one change has been more controversial: the decision to subtract non-discretionary expenses (such as medical out-of-pocket expenses) from income. One of the primary reasons this is controversial is the suspicion that families with more medical spending may have significant assets and savings that they have built up specifically to finance necessary medical care. This concern may be especially warranted for the elderly, whose incomes may not reflect their savings and assets accumulated over the life course. Without accounting for savings and assets, elderly poverty rates are substantially higher under the SPM than under the OPM, almost entirely because of the subtraction of medical expenses. Indeed, in 2012, elderly poverty under the SPM stood at 14.8 percent. If medical expenses were not subtracted from resources, elderly poverty would instead stand at 8.4 percent.[1] This project builds on a new approach to incorporating assets into the measurement of poverty and economic risk put forth recently by the National Research Council and Institute of Medicine through the National Academy of Sciences. As such, it will provide the first evidence to date on trends in elderly income and poverty based on the improved SPM but that incorporate assets and savings in a rigorous manner.

## Background

The Official Poverty Measure (OPM) has existed since the 1960s, when it was developed by Mollie Orshansky, a researcher at the U.S. Social Security Administration at the time (Fisher,

[1] Authors' analysis of public-use *Current Population Survey* microdata.

2008). Her approach, which was not originally intended to become the "official" measure of poverty, was essentially to consider two pieces of information: (1) the cost of a minimally nutritious diet; and (2) the percentage of family budgets spent on food. Given that families spent about one-third of their income on food at the time, the cost of a minimally nutritious diet was then multiplied by about three to arrive at a poverty threshold. This poverty threshold has since been adjusted for inflation. When measured against the standard of the OPM, the long-term trend in elderly poverty rates looks like a smashing success, falling from over 35 percent in 1959 to about 9 percent in 2012 (DeNavas-Walt, Proctor, and Smith, 2013).

But poverty scholars have long argued that the OPM is a flawed standard by which to measure the level or trend of material deprivation in America. Although innovative in its time, the OPM (as it was enacted into federal statistical practices) has long been subjected to criticism on methodological terms. In particular, the OPM poverty thresholds do not take into account changing living standards, such as the fact that food has become a smaller portion of families' budgets over time, while other costs like housing have become more important (Garner, 2010). The SPM makes a number of changes to the measurement of poverty in response to decades of debate amongst scholars attempting to improve the measure (see Citro and Michael, 1995; Iceland, 2005). These include: (1) altering the definition of the family (or poverty unit) to include not just those related by blood, marriage, or adoption but also cohabiting unmarried partners and their children; (2) basing poverty thresholds not on the cost of food in the 1960s but on current consumer expenditures on food, clothing, shelter, and utilities plus a little more for other necessary expenses; (3) geographically adjusting poverty thresholds to account for variation in the cost of living across the United States; (4) including after-tax income and in-kind benefits in the counting of resources; and (5) subtracting so-called "non-discretionary" expenses like medical, work, and child care costs from income.

This last decision has been undoubtedly the most controversial, particularly when it comes to medical out-of-pocket expenses (MOOP). One notable finding under the SPM is that elderly poverty rates are much higher under the SPM than under the OPM, which is driven primarily by the decision to subtract MOOP expenses from income. For instance, Korenman and Remler (2013) show that, making all other changes under the SPM *except* subtracting MOOP would result in poverty rates that, if anything, would be below published OPM rates (8.6 percent vs. 9.0 percent in 2010). Meyer and Sullivan (2012) find that in the total population, those newly

classified as poor under the SPM have substantially higher assets at the 75th and 90th percentiles than those who are poor under both measures and those who are newly classified as not poor under the SPM. This raises the question of whether the increases in elderly poverty under the SPM are "real," in the sense that those elderly individuals classified as poor under the SPM really do not have sufficient resources to afford the levels of MOOP spending that they exhibit in the data. Ultimately this is an empirical question. In this paper, we harness data from the *Health and Retirement Study* (HRS), a nationally representative survey of Americans over the age of 50 that collects detailed information on health, income, and wealth, to provide the first estimates that descriptively document the portfolios of various groups of elderly Americans classified as poor under different poverty measures, and how those portfolios have changed over time. As such, the key research question posed by the proposed study is: How do the level and trend in elderly poverty rates differ among the three different poverty measures: (1) the OPM; (2) the SPM; and (3) an augmented SPM that takes assets and savings into account. In addressing these questions, we build on prior work on elderly poverty that uses the Social Security Administration's MINT model (Smith and Favreault, 2014; Butrica, Smith, and Iams, 2013) to simulate the effect of accounting for savings and assets on poverty levels and the economic well-being of older Americans.

Aside from multidimensional or social exclusion-based approaches to measuring poverty and disadvantage (Atkinson, Cantillon, Marlier, and Nolan 2002; Stiglitz, Sen, and Fitoussi 2009), which are more common internationally (Alkire and Foster, 2011; Bourguignon and Chakravarty, 2003), assessments of poverty in the United States tend to take one of two approaches, depending on the definition of resources that families have at their disposal to meet their needs. These two approaches are to consider income poverty or consumption poverty. In the income poverty tradition (Smeeding, 1977; Blank, 2008; Fox et al., 2015; DeNavas-Walt and Proctor, 2015), the inflows of income into a family or household are compared to a poverty threshold. Poverty thresholds have historically been defined in absolute terms based on various criteria and adjusted for family size and composition (Iceland, 2012; Garner, 2010; Betson and Michael, 1993), but can, of course, be estimated in relative rather than absolute terms. The SPM takes this approach, with SPM thresholds varying over time with the cost of a basket of goods deemed necessary for making ends meet (Citro and Michael, 1995; Garner, 2010; Short, 2014). Those in favor of a consumption-based approach adopt a mostly similar methodology, but

substitute a measure of consumption for a measure of income as the definition of resources (Meyer and Sullivan, 2012a). Researchers using these measures have paid less attention to what constitutes an appropriate poverty threshold and have typically used an anchoring method to tie consumption poverty levels to income poverty levels in a specific year and assess trends forwards (and/or backwards) from that point.

Research on the economic well-being of the elderly, typically defined as those ages 65 or above, is in some ways consistent regardless of whether an income or a consumption poverty approach is chosen, but in other ways poses some empirical puzzles. Meyer and Sullivan (2012b) show similarly steep declines in both income and consumption poverty over the past five decades, which is consistent with recent research by Fox et al. (2015) that shows a similar dramatic fall in elderly income poverty using methods based on the Census' and Bureau of Labor Statistics' (BLS) recent SPM income-based measure. Differences, arise, however, when looking at levels of income poverty in recent years, where SPM-based measures tend to show much higher rates for the elderly than do official income-based poverty figures or consumption-based measures (Short, 2014; Bridges, 2013; Meyer and Sullivan 2012b). As noted above, this is due to the subtraction of medical expenses from family resources, which substantially increases elderly poverty rates. But scholars have argued that this inflation in elderly poverty is artificial, since many elderly families may have considerable assets at their disposal to finance their consumption (Meyer and Sullivan 2012b; Chavez, Wimer, and Betson 2015).

At issue here is the question of what is the proper way to handle the role of assets in the context of poverty measurement, particularly a poverty measurement for the elderly population. There is a separate literature on measuring so-called "asset poverty," (Brandolini, Magri, and Smeeding, 2010; Sullivan, Turner, and Danziger, 2008) that generally looks at assets separately from income. A typical question in this literature is whether adults have sufficient assets to buffer a shock of a given size. For example, what percent of individuals live in families with sufficient assets to cover an unemployment spell of three months, where covering such a spell might be defined as one quarter of an annual poverty threshold (Haveman and Wolff, 2004; Short and Ruggles, 2005)? Such operationalization, while useful and informative, apply less well to the elderly population, where the idea of spells of unemployment or some other shock are less well-defined, and where it is more often expected that assets will be drawn down to finance consumption during retirement. In this paper, we descriptively explore the level and recent

trends in elderly poverty after formally incorporating assets into an income-based measure of poverty – the SPM –implemented in the HRS.

To implement an augmented SPM that incorporates assets and savings, we rely on methods recommended by a recent National Academy of Sciences (NAS) report for creating a measure of "Medical Care Economic Risk" (MCER). The task of implementing the Affordable Care Act of 2009 was put under the charge of the Department of Health and Human Services (HHS). To determine the effectiveness of the new law in reducing hardship, the department turned to the SPM. However, the SPM does not incorporate the value of medical insurance in reducing the probability that large medical expenses will push a family into poverty in the future. Thus, in 2009, the Office of the Assistant Secretary for Planning and Evaluation in HHS requested the NAS convene a panel of experts to study the potential of developing a measure of medical care risk in addition to the SPM.

The panel released a report detailing their conclusions in 2011, introducing the MCER. The MCER included a variety of innovations to the measurement of economic risk, not least of which was the inclusion of assets in a family's available pool of resources. The report detailed a method for determining the amount of assets a family could be reasonably expected to put toward medical expenses in a given year: calculate an annual annuitized payment from a family's liquid assets. Assets include money in savings and checking accounts, the value of retirement accounts after any early withdrawal penalties, and the potential value of a reverse mortgage on a family's home. We execute these methodological recommendations in the HRS for the first time.

For the elderly, medical expenditures are not an extraordinary occurrence. Furthermore, as families enter retirement age they typically begin to draw down their assets and use that money for day-to-day expenditures. Therefore, we explore the implications of incorporating assets into a measure of poverty, using the methodology recommended for the MCER. It is worth noting that the panel's report proposed calculating the MCER as a measure of future *risk*, not directly into a contemporaneous poverty measure like the SPM. The primary rationale for this appears to be that the *Current Population Survey* lacks data on assets necessary to consider an augmented SPM. But if one wants to examine trends in poverty among the elderly, the HRS provides sufficient information to calculate the SPM both with and without the incorporation of the HRS' high-quality asset data. In particular, the HRS study is longitudinal, so when we

measure income poverty at time *t*, we also know their asset portfolio at time *t-1*. By turning assets at *t-1* into an annuitized payment available to respondents at time *t*, we can incorporate assets in a contemporaneous measure of poverty rather than a future-oriented measure of economic risk. Thus, our primary goal in this project is to reassess trends in elderly income poverty using a measure that incorporates assets into contemporaneous measures of resources and needs.

The determination of a yearly annuitized payment from the lump sum of a family's assets (as defined above) is based upon the IRS' method for calculating minimum IRA disbursements. We also explore alternative definitions of assets that include near-liquid assets, such as IRAs and stocks. To derive the annuitized payment, we divide total assets by the present value of an annuity continuing over the person's expected age with an immediate first payment. Lifetime expectancy is estimated using IRS mortality tables, which are based on age and gender.[2] We assume an interest rate of 3.76 percent, which is the average of the 120 percent of the federal mid-term rate during the reference period 2001-2011, but we also explore alternative interest rates to check the sensitivity of our main results.

Reverse mortgages are available to those over 62. These loans allow homeowners to withdraw a percentage of their home equity, which for purposes of this study is the reported value of the home minus the principal of any outstanding mortgage or loans on the home. The Federal Housing Authority dictates the terms at which these loans can be offered, using a proprietary calculator that takes location, home value, and estimated repairs into account. In this study, we will make broad assumptions about the potential value of a reverse mortgage using the following estimates. We assume 62-75 year olds can borrow 35 percent of the equity in their homes, 75-85 year olds can borrow 45 percent, and those over 85 can borrow 55 percent.

**Data**

To estimate the SPM for those over 65, the HRS provides a nationally representative sample of older Americans and their spouses living in the United States. We exclude HRS respondents in institutionalized settings like nursing homes from the analysis. In constructing the SPM, we mostly follow the procedures of Chavez, Wimer, and Betson (2015), who have built the SPM into wave 10 of the HRS, conducted in 2010. Although the HRS is longitudinal,

[2] See http://www.irs.gov/Retirement-Plans/Actuarial-Tables.

in this project we treat it like a repeated cross-section representative of older Americans of retirement age, or those over the age of 65. The one exception is that we harness asset data not from the present wave (which may have been spent down over the prior two years), but the assets of families from their last prior year of data.

The HRS began in 1992 with a sample of individuals born between the years of 1931 and 1941. This original cohort is resurveyed every two years. In 1998, the HRS merged with the Asset and Health Dynamics Among the Oldest Old (AHEAD) survey, which focused on an older sample of the elderly born in 1923 or earlier. In addition to the AHEAD merger, HRS also added a cohort to fill the age range between the original HRS sample and the AHEAD sample, and a refresher cohort born between 1942 and 1947. HRS added an additional refresher cohort in 2000 of individuals born between 1948 and 1953. We therefore build the SPM and the augmented SPM incorporating assets into all waves of the HRS from 2002 to 2012.

The HRS has detailed data on asset holdings broken down by type. It has been used extensively to study how the elderly draw down their assets as they age. Wealth is one of the core modules in the HRS, which has gathered detailed data on assets back to its inception in 1992. It includes data on savings and checking accounts, bond and stock holdings, home values, and personal IRA and Keogh retirement accounts. There is also data on 401(k) retirement funds held by employers. The breakdown of sources of assets is necessary because different asset types have varying levels of liquidity, and our analysis focuses on the value of liquid assets – though we also explore alternatives.

The HRS contains rich information on respondents' income as well. We denote the main elderly individuals central to the HRS study as "core" respondents, and we denote other individuals in the household as "non-core" respondents (e.g., children or other relatives of the core respondents). In 2010, roughly three-quarters of core respondents were in core-only households. The HRS uses a number of innovations in data collection that make it preferable to other datasets for the reporting of income. First, HRS asks the most appropriate core respondent to answer family-related questions and finance-related questions. For example, if one core respondent handles household finances, he or she would answer the questions related to income and assets. In families with only core respondents, this undoubtedly increases the accuracy of family and financial data. Income data quality is lower for non-core family members, as the

income of these family members is obtained from many fewer questions than for core respondents.

Surveys collecting income and asset information often suffer from high item non-response for income or asset values, meaning respondents are willing to say they receive a type of income (e.g., stock dividends), but are unwilling to reveal the value of that income. To reduce the severity of non-item responses for income and asset questions, HRS uses unfolding brackets of asset or income values to create a range of the actual value. For instance, if a financial respondent does not know or refuses to indicate the value of an income or asset, HRS asks: "Would it be less than $2,000, more than $2,000 or what?" If the financial respondent answers more than $2,000, he or she is then asked: "Would it be less than $5,000 more than $5,000 or what?" This process continues until the "true" amount is limited to an income bracket.[3] Finally, HRS improves the accuracy of income derived from assets by asking about this income immediately after asking about the value of the assets themselves. This technique is shown to reduce the problem of underreporting income from assets (Roemer 2000). For more HRS advantages, please see Hurd and Rohwedder (2006).

HRS's innovative questionnaire design reduces the prevalence of income non-item response, yet some missing income data remains. To resolve this problem, the Center for the Study of Aging at the RAND Corporation developed and published their imputation procedure (see St. Clair et al. 2011) for missing income data. We use this fully imputed data from RAND as the starting point for constructing the SPM. For each family in the HRS, we calculate an SPM poverty threshold from published thresholds provided by the BLS. SPM thresholds are typically adjusted for cost-of-living differences based on rental prices in different metropolitan areas. Our thresholds are not geographically adjusted, however, as public-use HRS data do not contain the necessary geographic identifiers to adjust the poverty thresholds.

As noted above, the HRS contains much of the information necessary to compute the SPM. In addition to RAND's imputed money income, the HRS also contains information on receipt of Supplemental Nutritional Assistance Program benefits (SNAP) and government housing assistance, two of the largest in-kind programs newly included in resources under the SPM. The HRS lacks any information on the Women, Infants and Children (WIC) and School

[3] While each question has a preset cut-points from which bracketed values are constructed (e.g. for last year's wages and salary the cut-off points are $5,000, $25,000, $50,000, 100,000), HRS randomly selects which cut-off to present first.

Lunch programs and the Low Income Home Energy Assistance Program, but given the small nature of these programs, especially for elderly families in the case of WIC and School Lunch, the exclusion of these programs in unlikely to affect estimated poverty rates. The HRS also lacks information on after-tax income, though in all years we use NBER's Taxsim program to estimate net tax liabilities and receipt of any tax credits. The HRS also contains rich information on families' medical out-of-pocket expenses, the key component driving higher poverty rates among the elderly under the SPM. Work expenses for those still in the labor market are estimated using Census procedures that are based on weeks worked and typical work expenses reported in other data sources.

**Results**

Table 1 shows descriptive statistics for the sample. We use a pooled sample from 2002 to 2012, and our observations are therefore person-years. The pooled sample is 57 percent female and 43 percent male. Sample members are predominantly while (88 percent), with smaller numbers reporting being black (8.56 percent) or another race. Over half are under 75 (54 percent), while 34 percent are between 75, and 84 and the remainder are over 85. Nearly two-thirds are married. Mean income for the sample was approximately $78,000, while mean assets (including home values) was over $300,000 – though this figure is inflated upward because of outliers. Mean medical out-of-pocket expenditures (MOOP) were a bit over $2,000, while the mean calculated annual annuity payment was nearly $27,500. These numbers suggest that, consistent with expectations, a sizable portion of the elderly population have significant assets with which they might finance their consumption needs.

Figure 1 shows our primary results. We present trends using the official measure, our estimate of the supplemental poverty measure, and a version of the SPM that excludes MOOP from the calculation of resources. The figure highlights the point made earlier – that SPM poverty rates for the elderly are considerably higher than official rates, primarily because of the subtraction of MOOP from SPM resources. Without taking into account MOOP, elderly poverty rates would vary between 7 percent and 12 percent over the decade, while official rates would be quite similar, between 8 percent and 11 percent. After subtracting MOOP expenses, however, estimated SPM poverty rates are consistently higher. SPM rates are 4.5 percentage points higher

in 2001, and fully 6.1 percentage points higher in 2011 after the exclusion of MOOP expenses from resources.

These findings highlight the uncertainty about the economic well-being of the over-65 population that has become controversial in the poverty measurement field. Are the elderly really faring as poorly as SPM estimates suggest, relative to the longstanding lower rates obtained when using official statistics? To answer this, we utilize the MCER approach to incorporating assets into the measurement of poverty, as outlined above. We begin with liquid assets, which are the most readily available assets that could be used to finance consumption and the recommended approach of the NAS panel that outlined the MCER measure. Including an annuitized portion of liquid assets results in reduced poverty rates in all years, though the rates are still higher than would be observed using the official measure. Including a portion of liquid assets lowers SPM poverty rates by 1-2 percentage points in all years. These rates are still 2-4 percentage points above official rates, however. Estimated reductions in poverty, thanks to available liquid assets, result in a net reduction in poverty rates of 9-12 percent when calculated in relative terms.

Counting only liquid assets, however, may be too conservative an approach for adults over 65. After all, it is in retirement that we expect assets like retirement accounts to be spent down. In Figure 3, we therefore re-estimate our SPM poverty trends but annuitize a broader definition of assets that includes both liquid and near-liquid assets. Near-liquid assets are retirement accounts, stocks, mutual funds, and the like that, while not immediately available in the way that checking and savings accounts are, can be accessed to finance current consumption. When we broaden the definition of assets in this way, we see much more considerable reductions in SPM poverty rates. Here SPM rates that include both income and an annuitized portion of liquid plus near-liquid assets are almost identical to the official poverty rates, ranging from 8-12 percent. If we believe that a portion of both liquid and near-liquid assets should be available for consumption, we would conclude that official rates more accurately capture true need among the elderly population than do SPM poverty rates, albeit in a manner that more fully captures the available resources that could be used to finance both medical and non-medical consumption.

People also have real assets, of course, most notably in the form of their homes. Tapping the value of homes is considerably more difficult, however, and it is questionable whether tapping such wealth to finance current consumption is a wise financial decision. Nevertheless, as

a thought exercise, Figure 4 shows what would happen to estimated poverty rates if we also included the estimated value of a hypothetical reverse mortgage on the value of respondents' primary residences. As expected, poverty rates are even lower than in Figure 3 once we include a reverse mortgage. Here, poverty rates are even lower – about 1 point lower – than official rates, or about 7 percent in 2001 to 10 percent in 2011. Also, however, extracting equity from one's home may be more than should be expected for those over 65 to finance their current medical or non-medical consumption.

So far, the results presented in this paper have been for the entire 65+ adult population. But our method for incorporating a portion of assets into the poverty measure also allows us to look at relevant subgroups of the elderly population. In doing so, it helps us understand how existing disparities in elderly poverty rates are or are not exacerbated by wealth inequality. We focus here on four demographic characteristics: gender, race, marital status, and age. In the following figures, we show the impact of including a portion of assets derived from the combination of liquid and near-liquid assets. Results for liquid assets only and total assets are available from the authors upon request. We show impacts in relative terms. That is, we ask what is the relative reduction in poverty for various subgroups after including an annuitized portion of assets into the measure of resources.

Women tend to have higher poverty rates than men at almost all age groups, both under the official and the supplemental measures of poverty. After including assets, we find these disparities little changed. In Figure 5, including a portion of assets reduces both male and female poverty rates in relative terms by about 30 percent, though results vary a bit year to year. Because women have higher poverty rates to start with, this means that absolute changes in poverty rates are larger for women than for men (not shown). But relative disparities between men and women are not much changed by considering assets. This makes sense since our measures assume that couples share assets within their poverty resource units. And while women live longer than men, in most cases elderly widows may be assumed to have inherited the couples' wealth following men's' deaths in the case of opposite-sex couples.

We next show results by race. Figure 6 repeats the exercise for whites and blacks, the two largest racial groups in the data. Here we see a much greater disparity in the impacts of including assets. This disparity reflects large and well-known wealth inequalities between whites and blacks in asset holdings and amounts. For white older Americans, incorporating a

reasonable portion of assets into the resource measure reduces poverty rates by over 30 percent, and by 40 percent in some years. For black older Americans, the magnitude of these reductions is considerably smaller: about 6 percent in 2001 to about 8 percent in 2011. Because blacks have such elevated poverty rates to begin with relative to whites, this disparity will exacerbate the relative poverty gap between whites and blacks. In other words, white older Americans look even less poor than we thought when using our augmented measure, while black older Americans appear to have little wealth that could help finance subsistence levels of consumption in old age.

We next consider marital status. Here the expected results are less clear. On the one hand, married adults over 65 can be expected to have larger asset portfolios, meaning their annuitized estimated payments would concomitantly be expected to be larger. On the other hand, if single adults over 65 are older and therefore have fewer estimated years to live, we would expect the total portion of their asset portfolios available to finance consumption to be relatively larger. Figure 7 shows the net results. It appears that the effect of larger total portfolios outweighs the age issue, with substantially larger relative effects of assets for the married than the unmarried group. For the married group, the relative reduction in poverty after including a portion of assets is always 30 percent or greater, and is over 40 percent in recent years. For the unmarried group, on the other hand, the relative reduction is a bit over 20 percent on average. Since the unmarried have higher estimated poverty rates to begin with – similar to race – considering assets tends to exacerbate pre-existing inequalities, leading to larger relative gaps in poverty rates between married and unmarried older Americans.

Lastly, we consider age. Americans over 65 are a large and diverse group, and the relative effect of assets by age depends both on estimated life spans and the portion of asset portfolios left to older Americans after they age (and, therefore, may have spent down assets in different ways than what our annuitization method suggests is optimal). Figure 7 shows the relative effects of considering assets for 65-74 year olds, 75-84 year olds, and age 85 and over. As can be seen in the figure, the relative effects of considering assets are greater the older you are. This is likely because a greater portion of your assets are deemed available for financing consumption the older one is and therefore the lower ones total life expectancy given current data. For the oldest group, those over 85, the relative effects are consistently over 30 percent and sometimes top 40 percent. For 75-84 year olds, results vary a bit but hover on average around 30

percent. For the youngest group, the relative effects also vary by year but average a bit less than 20 percent over the period. As opposed to racial inequality and inequality by marital status, here the role of assets is inequality reducing. The older age groups have considerably higher poverty rates to begin with, so the larger effects of assets for these groups will compress relative inequality in poverty rates by age.

**Discussion**

This paper has examined recent trends in elderly poverty rates using the official measure of poverty, the new Supplemental Poverty Measure (SPM) and an augmented version of the Supplemental Poverty Measure that incorporates a portion of assets into the definition of resources. The official measure has been widely criticized as being out of date and containing many well-recognized flaws. With regard to the elderly, it does not consider medical expenses faced by this group, which may artificially lower their estimated poverty rates. It also relies on a measure of pretax cash income, when the tax system and in-kind benefits have become increasingly important resources for many American families (Fox et al., 2015). The SPM corrects for many of these flaws but has also been criticized when it comes to the elderly since it considers medical needs in the form of out-of-pocket medical expenditures but ignores the fact that many elderly families presumably have significant assets built up over the course of their lifetimes with which they intend to finance consumption (both medical and non-medical) in old age.

Our paper is the first to consider these facts jointly (Chavez, Wimer, and Betson, 2015, examine the asset portfolios of the elderly under different measures descriptively in one recent year). We use an approach adapted from a recent expert panel convened to recommend ways to measure the treatment of medical care in the measurement of poverty and medical risk. We find that: (1) as in previously published research, the elderly have considerably higher poverty rates under the SPM than under the official measure and that this disparity is driven by the SPM's treatment of MOOP; (2) SPM poverty rates are considerably lower than actual SPM rates when an annuitized portion of liquid assets is incorporated into the measure of resources; (3) when both liquid *and* near-liquid assets are considered, trends and levels of SPM poverty rates are extremely close to official poverty rates; (4) SPM poverty rates would be even lower than official rates if all assets including reverse mortgages on homes were considered, though this

might be considered a less reasonable approach by some observers; (5) incorporating assets has differing effects on pre-existing disparities in poverty rates, It exacerbates inequalities by race and marital status, reduces inequalities by age, and has little effect on inequalities by gender.

While this is the first study of its kind that we are aware of that presents recent trends in elderly poverty rates under the SPM while also incorporating assets, it does have some limitations. First, we have been able so far to go back only to 2002, the year RAND began publishing a poverty measure derived from the HRS. The imputed data from calculating this measure provide the foundation for this analysis. Extending the time series back further would be a useful task for future research. Second, even with the HRS' improved income data collection routines, the HRS suffers from underreporting of income and extensive amounts of missing data. We have relied on RAND imputations of missing data here, which are thought to be of high quality, but there are differences in elderly poverty rates and trends between those found in the HRS and in other sources. In particular, under all measures considered here there is a sizable jump in elderly poverty rates in 2011, even under official rates, that is not seen in the *Current Population Survey*. Representatives from RAND (through personal communication) reported a need to further understand this jump and whether it was due to imputation procedures, survey weights, or simply differences in samples. Third, while the HRS is extremely useful for the present purposes, it is restricted to older Americans. Moreover, our approach requires rich longitudinal data on income, medical expenses, and assets, precluding our approach from being widely used in alternative data sources or at least making it more difficult.

Our results suggest that ignoring assets among the elderly population in the context of the SPM likely overstates their poverty relative to the official measure. Including a "reasonable" portion of assets, from either liquid assets or liquid and near-liquid assets combined, would result in substantially lower poverty rates for those over 65. This suggest the real economic levels of deprivation among the elderly population are probably closer to those suggested by the official measure that those suggested by the SPM. Investing in the collection of greater asset and wealth data in large national surveys may be a promising approach for the continued improvement of the nation's income poverty measures.

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Table 1. *Descriptive Statistics*

| | |
|---|---|
| **Gender** | |
| Men | 43.01% |
| Women | 56.99% |
| **Race** | |
| White | 88.01% |
| Black | 8.56% |
| Other | 3.43% |
| **Age** | |
| 65-74 | 54.09% |
| 75-84 | 33.88% |
| 85+ | 12.03% |
| **Marital status** | |
| Married | 62.39% |
| Not married | 37.61% |
| **Family finances (averages)** | |
| Family assets | $334,240.90 |
| Calculated annuity payment | $27,459.40 |
| Medical out-of-pocket | $2,035.28 |
| Income | $78,229.17 |

**Figure 1: Poverty rates using official and supplemental poverty statistics, 2001 to 2011**

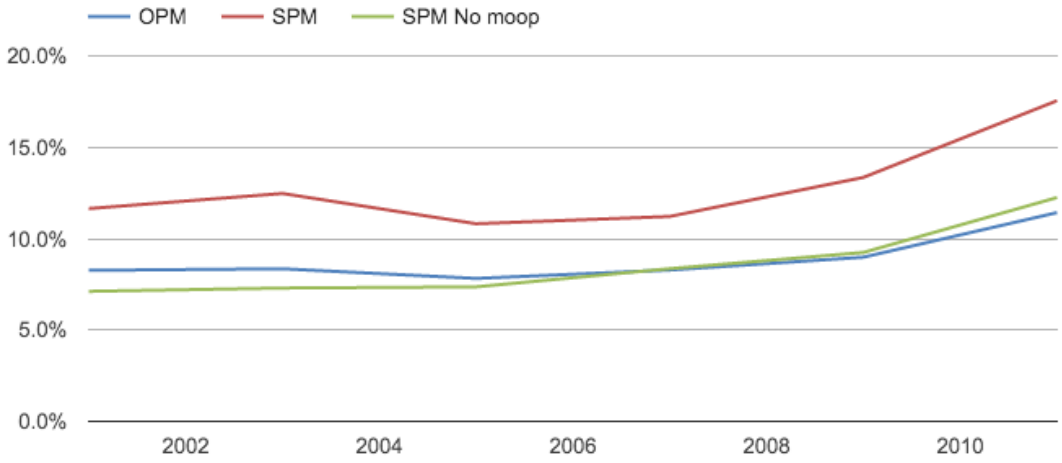



**Figure 2: Poverty rates after including annuitized value of liquid assets**

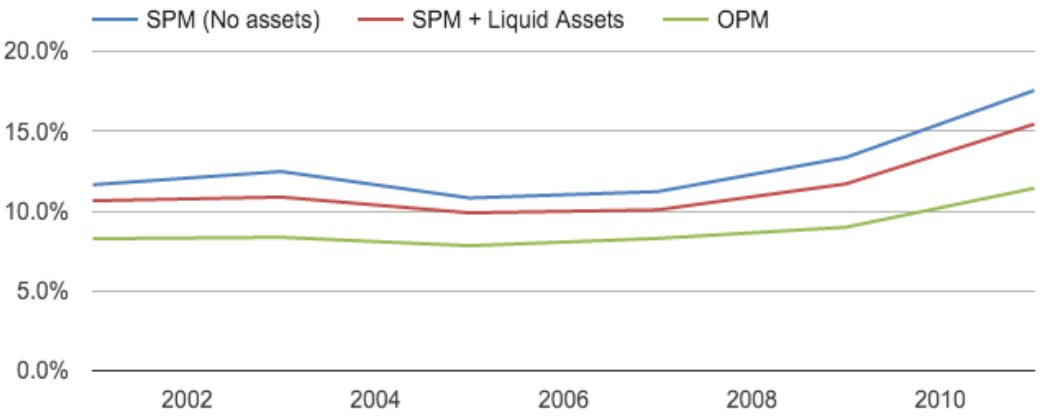


**Figure 3: Poverty rates after including annuitized liquid and near-liquid assets**

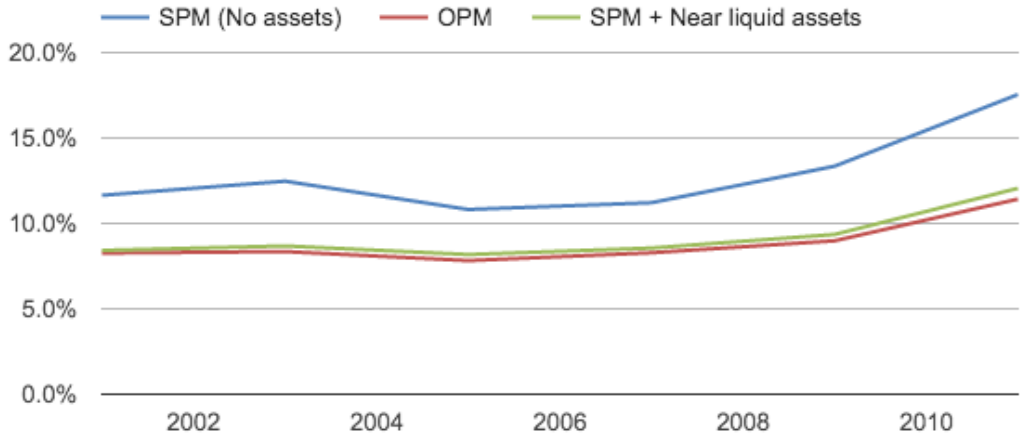



**Figure 4: Poverty rates after including an annuitized value of all assets**

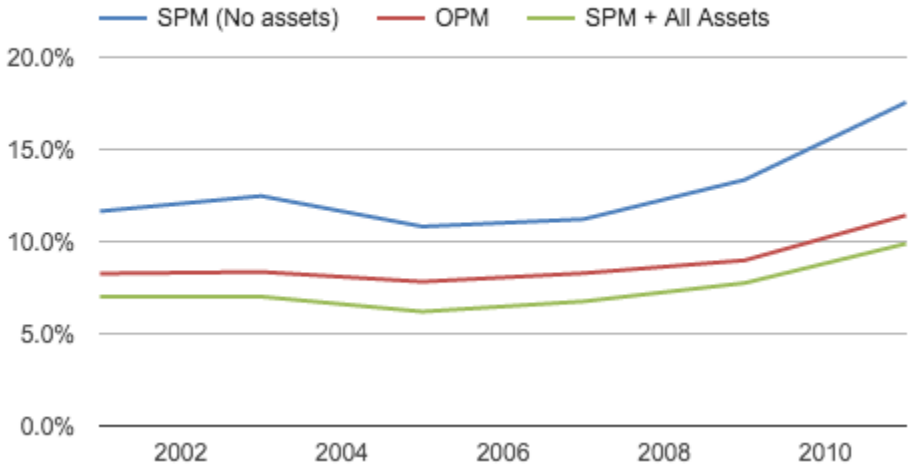


**Figure 5: Effects of Liquid and Near-Liquid Assets on Poverty Rates by Gender**

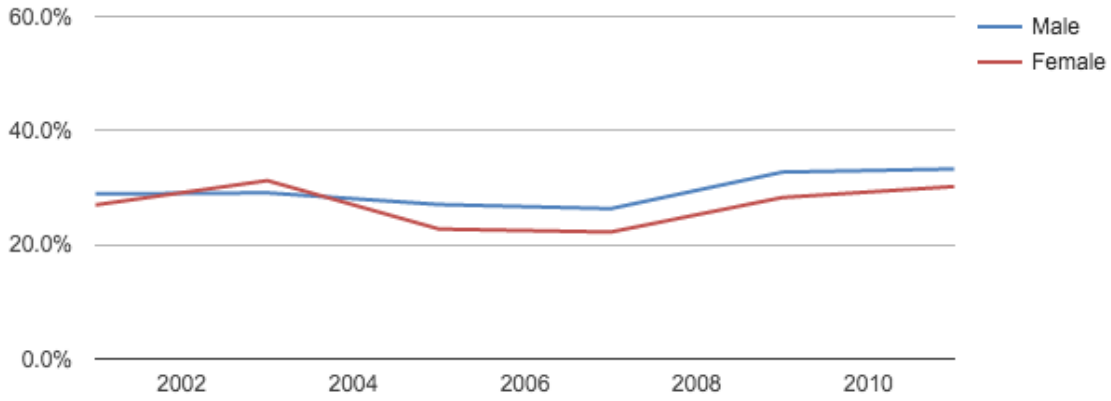



**Figure 6: Effects of Liquid and Near-Liquid Assets on Poverty Rates by Race**

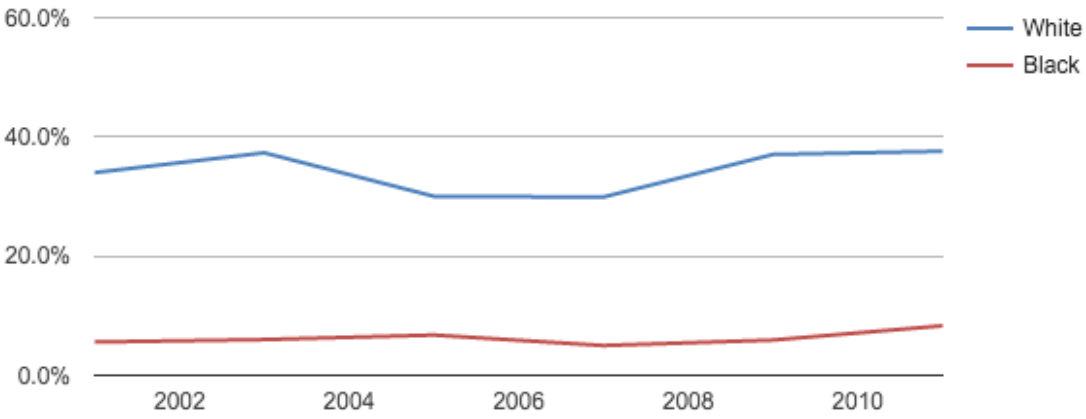


Figure 7: Effects of Liquid and Near-Liquid Assets on Poverty Rates by Marital Status

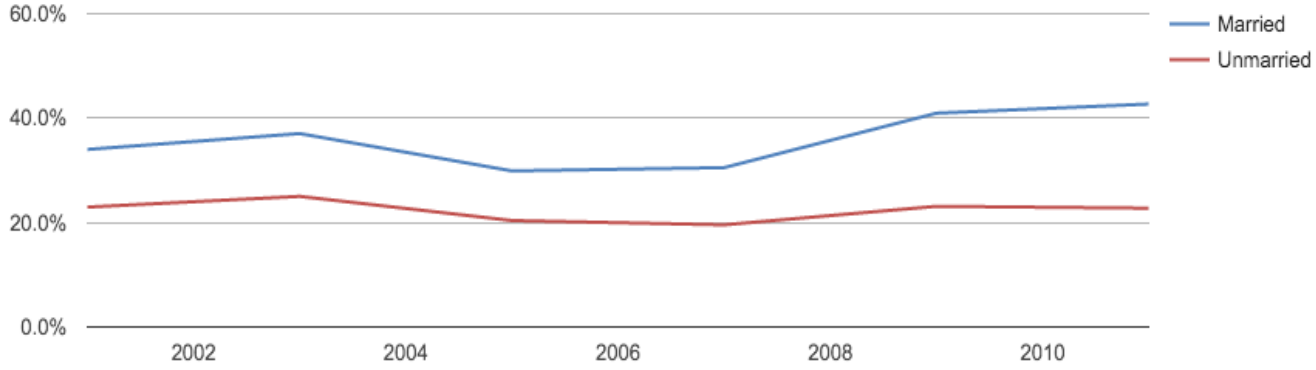
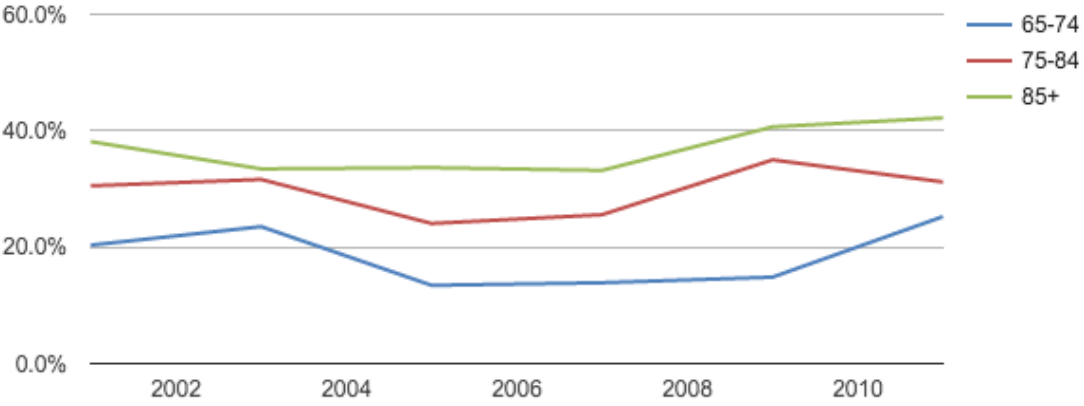



Figure 8: Effects of Liquid and Near-Liquid Assets on Poverty Rates by Age



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