Annuitized wealth and consumption at older ages

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Abstract

The growing popularity of Individual Retirement Accounts (IRAs) and defined contribution (DC) pension plans, which generally provide benefits in the form of lump sum payments instead of annuities, is likely to affect spending patterns at older ages. People who enter retirement with little of their wealth annuitized run the risk of spending too quickly and depleting their assets before they die. Or they might spend too slowly, out of fear of running out of money, and not enjoy as comfortable a retirement as they could afford.

This study uses data from the Health and Retirement Study (HRS), including a recent supplemental expenditure survey, to examine how household expenditures among adults ages 65 and older vary by the degree of annuitization—where annuities include Social Security benefits, pensions and private annuity contracts, and Supplemental Security Income (SSI) benefits.

Results indicate that typical older married adults hold 55 percent of their retirement wealth in annuitized assets, and unmarried adults have 59 percent of their wealth annuitized. Older adults with little annuitized wealth spend more, even controlling for demographics, income, and wealth. If all defined benefit pensions (DB) were converted into unannuitized DC retirement accounts, discretionary spending could increase by as much as 3 percent for married adults and 11 percent for unmarried adults. By comparison, if Social Security was completely privatized, and retirees did not annuitize, discretionary spending could increase by as much as 22 percent for married adults and 38 percent for unmarried adults.

I. INTRODUCTION

In the past, most retirees with employer pension plans received their benefits in the form of lifetime annuities, and few people entered retirement with large stocks of accumulated funds. With the growth in Individual Retirement Accounts (IRAs) and employer-sponsored defined contribution (DC) plans, increasing numbers of older Americans are now entering retirement with large account balances. Most employers do not offer annuities to their DC plan participants, and few retirees use their account balances to purchase annuities. Little is known about how quickly retirees will spend down their DC and IRA assets, or how these funds affect consumption patterns. People who have not annuitized much of their retirement wealth run the risk of spending too quickly and depleting their assets before they die. Or they might spend too slowly, out of fear of running out of money, and not enjoy as comfortable a retirement as they could afford.

This analysis uses data from a nationally representative survey of older Americans to examine the impact of annuitized wealth on household spending in retirement. We begin by comparing consumption patterns for older Americans with and without significant financial assets, including DC and IRA assets. We document differences in total expenditures, as well as differences in how retirees allocate their expenditures to such items as housing, health care, food, clothing, transportation, entertainment, gifts, and consumer durables. We then consider how the overall level and composition of expenditures vary by the degree of annuitization—where annuities include Social Security benefits, pensions and private annuity contracts, and Supplemental Security Income (SSI) benefits.

Finally, we also consider differences in consumption patterns by the type of annuitized wealth. Panis (2003) finds that the larger their share of wealth from pensions, the more satisfied people were with retirement—even controlling for income and wealth. Social Security wealth did not produce a similar effect. This result suggests that pension wealth might make people feel more secure than Social Security wealth. Along these lines, we hypothesize that the type of annuitized wealth produces differences in spending patterns. That is, older adults with annuitized pension wealth may spend their resources differently than those holding the same amount in Social Security wealth.

II. PREVIOUS LITERATURE

Previous studies have examined why so few retirees purchase annuities, how workers dispose of lump sum distributions from pension plans, and consumption patterns at older ages. There has been virtually no research, however, on the consequences of annuitization on spending patterns in retirement.

A number of studies have examined why so few retirees purchase annuities. Economic theory suggests individuals with fixed resources and uncertain lifetimes should purchase insurance against the risk of outliving their resources (Yaari 1965). However, only 4 percent of workers in DC pension plans convert their account balances into annuities at separation from their employer (Hurd, Lillard, and Panis 1998; Johnson, Burman, and Kobes 2004). Mitchell et. al (1999) examine adverse selection as a reason for low rates of annuitization and find that a dollar of annuity premium only purchases about 80 to 85 cents of payout for the typical person. However, they also find the insurance value of purchasing an annuity to be of similar magnitude to this additional cost. Brown and Poterba (2000) find the potential utility gain from purchasing annuities is smaller for couples than singles and propose this as a possible explanation for low rates of annuitization as the majority of new retirees are married. Dushi and Webb (2004) find most workers enter retirement with enough annuitized wealth from Social Security and pensions that they have no need to convert any other wealth into annuities. Laitner (1997) reviews studies examining the bequest motive as an explanation for limited demand for annuities.

In addition to examining why so few retirees annuitize their assets, researchers have studied what workers do with lump-sum distributions from pension plans. In 2003, 85 percent of workers with pension plans reported their plans offered lump-sum distributions as a payout option (Purcell 2005). The data suggest workers who take lump-sum distributions often spend some of their assets when separating from their employers. Studies based on a variety of surveys and firm data consistently find that more than half (54 to 66 percent) of workers who take lump-sum distributions spend their account balances rather than rolling their assets into other employer retirement plans or IRAs (Burman, Coe, and Gale 1999; Hurd, Lee, and Panis 1998; Johnson, Burman, and Kobes 2004; Moore and Muller 2002; Purcell 2005; Verma and Lichtenstein 2006; Yakoboski 1997).

However, statistics on the number of workers who choose not to roll-over lump sum distributions probably overstate the degree to which workers spend their nest eggs before retirement. First, the accounts that workers cash out tend to be smaller and consequently 67 to 79 percent of distributed dollars are in fact rolled over (Purcell 2005; Sabelhaus and Weiner 1999; Yakoboski 1997). Second, at least 33 percent of workers with DC plans choose not to take lump-sum distributions and leave their money in their former employer's plan (Hurd, Lee, and Panis 1998; Johnson, Burman, and Kobes 2004). Finally, workers who do not roll-over their lump-sum distributions often reinvest the money or pay down debt rather than increase consumption. Moore and Muller (2002) find that 28 percent of those workers who do not roll over their lump-sum distributions invest the money or use it to purchase a home or start a business. Studies find roll-over rates are higher for those with larger distributions, older workers, those with more education, higher income workers, whites, and women (Hurd, Lee, and Panis 1998; Moore and Muller 2002; Purcell 2005; Verma and Lichtenstein 2006).

A growing literature examines consumption patterns at older ages. These studies compare the spending patterns of older workers to younger workers (Paulin and Duly 2002), attempt to explain why consumption declines in retirement and examine whether workers expect this decline (Ameriks, Caplan, and Leahy 2001; Banks, Blundell, and Tanner 1998; Hurd and Rohwedder 2006), and compare the consumption needs of retirees to their after-tax income (Butrica, Goldwyn, and Johnson 2005). None of these studies, however, examine how the degree to which retirement wealth is annuitized affects spending in retirement. By addressing this question our study aims to better understand the implications of the shift away from traditional pensions to DC pensions and IRAs.

III.   DATA AND METHODOLOGY

Our data come from the Health and Retirement Study (HRS), a longitudinal survey of older Americans conducted by the Survey Research Center at the University of Michigan for the National Institute on Aging. Since 1992, the HRS has been following several cohorts of older respondents and their spouses. In 2000, the survey interviewed a nationally representative sample of 19,579 Americans ages 53 and older and their spouses. The HRS collects detailed information on a wide range of subjects, including basic demographic information, detailed

health status, and comprehensive income and asset information. It oversamples African Americans, Hispanics, and Florida residents, but includes sample weights used to adjust the estimates so that they represent the underlying national population.

The HRS administered a supplemental mail survey on household expenditures to a subset of respondents in 2001. This survey, the Consumption and Activities Mail Survey (CAMS), asked respondents to report household expenditures over the past 12 months on 32 different groups of goods and services designed to capture all household spending. Data was collected for 3,813 households. We merged the 2001 CAMS with demographic and asset information from the 2000 HRS and income information from the 2002 HRS (which collected data on income received in 2001). We also merged the 2003 CAMS with demographic and asset information from the 2002 HRS and income information from the 2004 HRS (which collected data on income received in 2003). In combination with the information collected from the core HRS questionnaires, CAMS provides an unusually rich source of data on household spending at older ages.

Measuring Expenditures and Income

To make the analysis of household spending patterns more manageable, we group expenditures into the following categories:

- housing, which includes mortgage payments, home/renter insurance premiums, property tax payments, rent, utility costs (electricity, water, heat, phone, and cable and internet services), spending on house/yard supplies, and home maintenance costs;

- health care, consisting of out-of-pocket payments on insurance premiums, drugs, health services, and medical supplies;

- food, which includes expenditures on groceries but not spending on dining outside of the home;

- transportation expenditures, which consist of payments for automobile finance charges, automobile insurance premiums, gasoline, and automobile maintenance (but which exclude any spending on public transit);

- entertainment, consisting of spending on dining out, vacations, tickets to events, and hobbies;

- gifts, which include charity and other gifts; and

- other consumer durables, including purchases of automobiles, refrigerators, washers and dryers, dishwashers, televisions, and computers.

The analysis relates spending to household wealth and household income. Our measure of household wealth includes financial assets, housing equity, and other assets. Financial assets include IRA balances; stock and mutual fund values; bond funds; checking, savings, money market, and certificates of deposit account balances; and trusts, less unsecured debt. Housing equity is the value of home less mortgages and home loans. Other assets include the net value of other real estate; vehicles; and businesses. To household wealth we add the present discounted value (PDV) of the expected future stream of Social Security, pension, and SSI benefits from current age until age 120. The computations assume a real interest rate of 2 percent and inflation of 2.8 percent in the long run.

Household income includes payments from self-employment; wages and salaries; professional practices and trades; tips and bonuses; business income; rental income; trusts; assets, including stocks, bonds, checking accounts, certificates of deposit, and IRA withdrawals; pension benefits; annuities; SSI benefits; Social Security benefits; unemployment compensation; worker compensation; veterans' benefits; welfare benefits; food stamps; alimony support; and other income.

Our analysis is based on per capita household expenditures, income, and wealth. Considering the total values could be misleading, because each of these measures tends to increase with household size. Ignoring household size could particularly distort estimated age differences in spending, because older households tend to be smaller than younger households. Although we can estimate per capita household expenditures by simply dividing spending by the number of household members, we can only approximate per capita income and wealth. The HRS collects complete information on income and wealth only for the respondent and spouse, not for other adults who might live in the household. We set per capita income equal to household income for unmarried adults and to one-half of household income for married adults. We do the same to estimate per capita wealth. This approach assumes that the income and wealth of any other adults living in the household equals the average per capita income and wealth of the respondent and spouse.

For each measure of interest, most of our tables report the mean value between the 45th and 55th percentiles of the distribution. This statistic approximates the median, and better

describes outcomes for typical people than the mean because it is less sensitive to extreme values. It is also a better statistic than the median, because the median value gives the breakdown for a single observation, which may not be representative of people in the center of the distribution. By using 10 percent of the sample, our statistic better describes the composition of expenditures and income for typical cases. For ease of exposition, we refer to this statistic as the median throughout the text, unless otherwise noted.

Sample Criteria

Our analytic sample consists of CAMS respondents ages 65 and older who report receiving either Social Security retirement or disability benefits. We restrict the sample to Social Security beneficiaries in order to focus the analysis on individuals who rely primarily on retirement benefits and assets to finance consumption rather than on earnings. In addition to respondents to the 2001 CAMS, we include respondents to the 2003 survey who were not interviewed in 2001. We only include new respondents in 2003 to avoid individuals appearing twice in our sample and consequently biasing the precision of our estimates. After dropping a few cases with missing data, our sample includes 2,053 married adults and 1,184 unmarried adults. We report results at the individual level, separately for married and unmarried adults. All expenditures, income, and wealth are expressed in 2005 dollars.

IV.   RESULTS

First we show how spending patterns relate to financial wealth for married and unmarried adults ages 65 and over. We then examine the level and composition of total retirement wealth, including Social Security and pension wealth, by demographic group. Next we show how retirement consumption varies by the degree of annuitization, as well as the type of wealth that is annuitized. We then estimate regression models of household expenditures to disentangle the impact of demographics, income, wealth, and the share of wealth annuitized. Finally, we simulate how changes in the share of wealth that is annuitized might impact spending.

Relationship between Expenditures and Financial Assets

We begin by examining how the spending patterns of adults ages 65 and older relate to their financial wealth (table 1). Median per capita expenditures are $16,813 for married adults and $18,366 for unmarried adults. Similar to Butrica, Goldwyn, and Johnson (2004), we find housing and health care to be the largest spending categories, comprising 47 percent of all spending for typical married adults and 57 percent of all spending for typical unmarried adults. Basic needs (housing, health care, food, and clothing) comprise almost two-thirds of expenditures for typical married respondents and almost three-quarters of expenditures for typical unmarried respondents.

The majority of older adults, 89 percent of married and 79 percent of unmarried, report positive financial wealth, which could easily be annuitized to support consumption in retirement. About one-third of both married and unmarried adults have some financial assets but no more than $25,000 per person. With $25,000, a 65-year-old adult could purchase a single life annuity that would provide $180 per month for the rest of his or her life.[1] One-third of married and one-quarter of unmarried adults have financial assets of more than $100,000. With $100,000, this individual could purchase an annuity that would provide $720 per month. To put this in context, the average per capita household Social Security benefit for this sample is about $842 per month.

Those with greater financial wealth spend more than those with less wealth, and a greater share of their spending is for discretionary purposes. Median retirees with more than $100,000 in financial assets have per capita expenditures that are nearly twice as high as for those without assets. Among median married adults, those with more than $100,000 in assets spend about equal amounts on basic expenditures and discretionary expenditures, such as transportation, entertainment, gifts, and other consumer durables. In contrast, those with zero or negative financial assets spend 76 percent of their budgets on basic needs and 24 percent on discretionary items. The difference is most striking for housing, which constitutes 27 percent of spending for the highest asset category as opposed to 47 percent for the lowest asset category, and entertainment and gifts, which constitute 32 percent of spending for the highest asset category while only 8 percent for the lowest category. Differences in the level and composition of expenditures across financial asset categories is similar, though less dramatic, for unmarried

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[1] Based on Group Annuity Mortality 1971 (GAM71) unisex mortality table and an interest rate of 4.125 percent.

adults. For example, median unmarried individuals with more than a $100,000 in assets allocate 63 percent of their spending to basic expenditures. In contrast, those without any assets allocate 75 percent of their budgets to basic items.

Expenditures and the Level and Composition of Household Wealth

It is clear from the data that a large number of older adults have significant financial assets that can be used to support consumption in retirement. However, most older adults have other sources of wealth, including housing equity, vehicles and businesses, and future Social Security, pension, and SSI benefits. Table 2 shows mean per capita expenditures and wealth for married adults with household expenditures in the 45th to 55th percentiles. Average total wealth is $377,365 of which less than a fifth comes from financial assets. Social Security is the largest source of wealth, comprising 41 percent of the total on average. Another 26 percent of wealth is from housing, vehicles, and businesses, and 14 percent is from pension annuities. Married adults with median expenditures have no wealth from SSI. The last column of table 2 shows the average share of wealth from annuities (Social Security, pensions, and SSI). As Dushi and Webb (2004) point out, the share of wealth annuitized is large. We find that it is 55 percent for the typical married adult.

Expenditures and wealth vary by demographic and economic characteristics in expected ways. They are highest for those who are non-Hispanic white, college educated, in excellent or very good health, homeowners with mortgages, and in the top third of income. In contrast, expenditures and wealth are lowest for those who are minority, without a high-school degree, in fair or poor health, renters, and in the bottom third of income. Different from those with high expenditures and wealth, older adults with low expenditures and wealth hold the bulk of their wealth in Social Security and relatively little of their wealth in pension annuities and financial assets. Social Security's progressive payment formula provides lower-income workers with a higher benefit relative to lifetime earnings. In contrast, pension benefits depend more directly on earnings than Social Security and higher-income workers are more likely to have pension coverage than lower-income workers.

As a result, Social Security comprises 73 percent of wealth for non-Hispanic blacks, but only 42 percent for non-Hispanic whites. Pension annuities make up 6 percent of wealth for

non-Hispanic blacks, but 15 percent of wealth for non-Hispanic whites. Similarly, financial assets comprise only 2 percent of wealth for non-Hispanic blacks, but 17 percent for non-Hispanic whites. Consequently, low socio-economic groups tend to have higher shares of their wealth annuitized. For example, 68 percent of wealth comes from annuity payments for individuals in the bottom third of wealth, compared with only 41 percent for those in the top third.

Table 3 shows mean expenditures and wealth for unmarried adults with household expenditures in the 45th to 55th percentiles. Compared with married adults, unmarried adults have lower total wealth and hold a larger share of this wealth in Social Security and SSI, and a smaller share in pension annuities and financial assets. Taking Social Security, pension annuities, and SSI together, a higher share of their wealth is annuitized. Average total wealth is $330,084 with 48 percent coming from Social Security, 26 percent from housing and other, 14 percent from financial assets, 10 percent from pensions, and one percent from SSI. On average, annuitized wealth comprises 59 percent of total wealth.

Expenditures, wealth, and the share of wealth annuitized differ by personal and economic characteristics for unmarried adults in similar ways as for married adults. High socio-economic groups have high expenditures and wealth and low shares of wealth annuitized, while low socio-economic groups have low expenditures and wealth and high shares of wealth annuitized. In some cases, demographic group differences are more extreme among unmarried adults than married adults. For example, Social Security comprises 91 percent of wealth for non-Hispanic blacks and 48 percent for non-Hispanic whites. Additionally, financial assets are a negative (debt exceeds assets) share of wealth for non-Hispanic blacks and a 16 percent share of wealth for non-Hispanic whites. Tables A1 and A2 in the Appendix show the dollar value of each of the components of wealth described above.

Spending Patterns by the Degree of Annuitization

Table 4 describes how the level and composition of median per capita expenditures varies with the share of wealth annuitized. About 15 percent of older adults hold less than 25 percent of wealth in annuities, an additional 30 percent hold 25 to 50 percent of wealth in annuities, and another 55 percent hold 50 to 100 percent in annuities. Married adults are less likely (20

percent) than their unmarried counterparts (30 percent) to have more than 75 percent of their wealth annuitized.

As suggested in tables 2 and 3, expenditures decline as the degree of annuitization increases. For both married and unmarried adults, median expenditures decline from about $27,000 for those with less than 25 percent of wealth annuitized to close to $14,000 for those with more than 75 percent of wealth annuitized. Compared with unmarried adults; however, married adults' expenditures decline less uniformly as their degree of annuitization increases. Married older adults with 25 to 50 percent of wealth in annuities spend 36 percent less than those holding less than 25 percent of wealth in annuities. There is virtually no difference in expenditures between the group holding 50 to 75 percent of wealth in annuities and the group holding 25 to 50 percent of wealth in annuities. However, married adults holding 75 to 100 percent of wealth in annuities spend 21 percent less than those holding 50 to 75 percent of wealth in annuities.

Budget shares for basic expenditures increase with the share of wealth annuitized. Married individuals holding less than 25 percent of wealth in annuities spend 51 percent of their budgets on basic items, while those who maintain more than 75 percent of their wealth in annuities allocate 70 percent of their budgets to basic goods. While spending patterns are similar for unmarried individuals, their budget shares for basic expenditures are larger.

These results are due at least in part to the negative correlation between expenditures, income, and wealth, and the degree of annuitization (observed in tables 2 and 3). That is, low socio-economic groups have low expenditures and wealth and high shares of wealth annuitized. However, we find expenditures are lower for adults with more of their wealth annuitized, regardless of income (table 5). The regression analysis will further disentangle the impact of income, wealth, and the share of wealth annuitized on household spending.

Next we examine whether different sources of annuitized wealth affect spending differently (table 6). First, we consider Social Security wealth. Social Security comprises more than one-half of total wealth for 29 percent of married adults and 40 percent of unmarried adults. As is in table 4, expenditures decline and the proportion of expenditures going to basic spending increase as the share of wealth coming from Social Security increases. Median expenditures are $24,445 for married adults and $26,574 for unmarried adults with less than 25 percent of wealth from Social Security, but about $11,500 for married and unmarried adults with more than 75

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percent of wealth from Social Security. For married adults, basic spending is 53 percent of total expenditures for median married adults with less than 25 percent of wealth coming from Social Security and 61 percent for those with more than 75 percent of wealth from Social Security.

In many ways, the trend is different for pension wealth. First, a significant share of the population (40 percent of married and 54 percent of unmarried adults) has no annuitized pension wealth at all. Second, expenditures increase, not decrease, as the share of wealth from pensions increases. For instance, married adults with less than 25 percent of wealth from pensions spend $16,674 while those with more than 50 percent from pensions spend $19,380. Third, there is not a positive correlation between the share of wealth from pensions and the share of basic expenditures. The share of basic spending is about the same for those with less than 25 percent and more than 50 percent of wealth from annuitized pensions, and is lower for those in the 25 to 50 percent range. The difference observed is due at least in part to many low-wage workers arriving at retirement with little wealth other than Social Security. Consequently, wealth is negatively correlated with Social Security and positively correlated with pensions. Our regression analysis will test whether Social Security and pension wealth have different impacts on expenditures holding income and wealth constant.

Modeling Household Spending and the Share of Wealth Annuitized

Next we estimate multivariate models of household consumption on the share of wealth annuitized. Because expenditures tend to be highly skewed, we estimate median regressions. We control for personal characteristics, income, and wealth in order to separate their influence on household spending from that of the share of wealth held in annuities. The coefficient on the share of wealth annuitized indicates whether, all things equal, retirees with large IRA or DC account balances spend differently than those holding most of their wealth in Social Security and pensions.

Table 7 reports the means for the variables in the regressions and whether differences between married and unmarried adults are statistically significant. As already discussed, per capita expenditures are significantly lower for married adults than for unmarried adults. The married adults in our sample are slightly younger than the unmarried adults. They are also more likely than unmarried adults to be non-Hispanic white, college educated, male, in excellent or

very good health, and homeowners. They also have more per capita income and wealth. Finally, older adults who are married have significantly less annuitized wealth than those who are not married (52.9 and 58.4 percent, respectively). For married adults, this wealth is less likely to come from Social Security and more likely to come from pension annuities.

For married adults, the regression results confirm that overall household spending is negatively correlated with the share of wealth from annuitized assets (table 8). The coefficients on the main term, squared term, and cubed term are jointly significant which suggests that the relationship is nonlinear. Holding all other variables at their means, figure 1 graphically depicts the relationship between spending and the share of wealth annuitized. Predicted household spending decreases with each percentage point increase in the share of wealth annuitized up to about 42 percent. Thirty-four percent of married adults fall into this group. Then household spending increases slightly with each percentage point increase in the share of wealth annuitized up to the point at which about 71 percent of wealth is annuitized. About 40 percent of married adults have between 42 and 71 percent of their wealth annuitized. Beyond 71 percent, household spending again decreases with each percentage point increase in the share of wealth annuitized. Twenty-five percent of married adults fall into this group.

When we separate out the type of wealth that is annuitized, we find that the share of wealth held in pension annuities has a much larger impact on expenditures than the share held in Social Security. All pension coefficients are jointly significant suggesting that this relationship is also nonlinear. In contrast, the coefficients on the share of wealth from Social Security are all insignificant, which suggests that for married adults it has no impact on household spending.

We also examine whether the share of wealth annuitized impacts basic and discretionary expenditures differently. For example, one could imagine that retirees with a lot of their wealth annuitized might feel more comfortable dining out, taking vacations, and buying gifts for family and friends because they have a steady and endless source of income. The share of wealth from Social Security has a significant, but small, negative impact on basic expenditures, while the share of wealth from pension annuities has no significant impact on basic expenditures. In contrast, the share of wealth from Social Security has no significant impact on discretionary expenditures, while the share of wealth from pension annuities has a significant and negative impact on discretionary expenditures.

Other coefficient estimates for the models are generally as expected. Household spending varies directly with income and wealth. Workers have significantly higher basic expenditures than those who do not work. Renters and homeowners with mortgages spend more on basic goods (such as housing) than homeowners without mortgages. Those in fair or poor health spend significantly less on discretionary items than those in good health. Also, retirees living in rural areas spend less than those living in suburban areas. Spending varies by Hispanicity and education even after controlling for income and wealth. Hispanics spend less than non-Hispanic whites on both basic and discretionary items. College graduates have higher expenditures, particularly discretionary outlays, and those without high school degrees have lower expenditures than high school graduates.

We estimated similar models for unmarried adults and found the relationship between household spending and the share of wealth annuitized to be linear (table 9). For this reason, we excluded the squared and cubed terms from the regressions. Overall, the impact of annuitized wealth on expenditures is much stronger for unmarried adults than for married adults. An increase of 1 percentage point in the share of wealth annuitized reduces household spending by .37 percent. In contrast to married adults, we find that Social Security has a much larger impact on expenditures than do pensions. A 1 percentage point increase in the share of wealth from Social Security reduces household spending by .49 percent. Though these effects are similar for both basic and discretionary expenditures, the impact is much stronger for discretionary spending. That is, when the share of wealth annuitized increases by 1 percentage point, discretionary spending declines by .78 percent. In particular, when the share of wealth from Social Security increases by 1 percentage point, discretionary spending declines by .96 percent.

These results show that, even controlling for income, wealth, and other personal characteristics, retirees with little annuitized wealth spend more than those with a lot of annuitized wealth. To ensure that our results are not driven by lower-income workers who arrive at retirement with little wealth other than Social Security, we performed sensitivity tests by running the same regressions on those with wealth above the 66th percentile. For both married and unmarried adults, the general results remain unchanged.

The Impact of Changes in the Share of Wealth Annuitized on Spending

To assist in interpreting the key coefficients in the regressions, table 10 describes the impact on household expenditures of decreasing the share of wealth annuitized by 10 percentage points. Except for pensions, the effects are smaller for married than for unmarried adults. Decreasing the share of wealth annuitized by 10 percentage points increases the overall spending of typical married adults by 3 percent. This small impact is driven entirely by pensions. That is, holding the share of wealth from Social Security constant, decreasing the share of wealth from annuitized pensions increases overall household spending by 6 percent. As the regression results suggest, discretionary spending is much more responsive to the degree of annuitization than is basic spending.

Again, the effects are much stronger for unmarried adults. Decreasing the share of wealth annuitized by 10 percentage points increases overall spending by 4 percent, basic spending by 3 percent, and discretionary spending by 8 percent. Different from married adults, this result is driven entirely by Social Security. Holding the share of wealth from pension annuities constant, a decrease in the share of wealth from Social Security increases overall household spending by 5 percent. As with married adults, the share of wealth annuitized has a much larger impact on unmarried adults' discretionary expenditures than basic expenditures.

Because the relationship between household spending and the share of wealth annuitized is nonlinear for married adults, a change in the share annuitized does not impact expenditures equally for everyone. As depicted in figure 2, a 10 percentage point decline in the share of wealth annuitized results in a 9 percent increase in expenditures for those with 42 percent or less of their wealth annuitized, a 1 percent decrease in expenditures for those with between 42 and 71 percent of their wealth annuitized, and a 2 percent increase in expenditures for those with 71 percent or more of their wealth annuitized.

Next, we simulate the possible impact of pension trends and Social Security personal retirement accounts (PRA) on household spending (table 11). Each of these simulations creates more potentially unannuitized wealth. First, we simulate the impact of the trend away from DB pensions continuing until all pension wealth comes from DC pensions. For married adults, the median share of wealth annuitized decreases from 55 to 41 percent resulting in a 2 percent increase in total household spending. For unmarried adults, the median share of wealth

annuitized decreases from 59 to 49 percent. This results in a 4 percent increase in basic expenditures and an 11 percent increase in discretionary expenditures.

Next, we examine how household spending would differ if Social Security established PRAs. Under most reform proposals, Social Security benefits would be reduced by the account contributions accumulated in the PRA. For example, one recent progressive price indexing proposal would result in about 25 percent of Social Security benefits coming from private accounts in 2055 for medium single-earner couples and as much as 50 percent for single-earner couples receiving maximum benefits.[2] If 25 percent of Social Security benefits were diverted to an unannuitized PRA, our simulations suggest that the share of wealth annuitized would decline to 45 percent for married adults and 47 percent for unmarried adults. This would increase total spending by 1 percent for married adults and 4 percent for unmarried adults, and discretionary spending by 2 percent for married adults and 8 percent for unmarried adults. If 50 percent of Social Security benefits were diverted to a PRA, discretionary spending would increase by 4 percent for married adults and 17 percent for unmarried adults.

One feature of many PRA proposals is that over time account balances comprise an increasingly larger share of Social Security benefits. We simulate this by assuming that the total amount of Social Security benefits is captured in an unannuitized PRA. For the typical married adult, we find that the share of wealth annuitized declines to only 14 percent and that discretionary expenditures increase by 22 percent. For the typical unmarried adult, the share of wealth annuitized declines to only 11 percent and discretionary expenditures increase by 38 percent.

V.   CONCLUSIONS

The growing popularity of IRAs and DC pension plans coupled with the limited demand for annuities suggests that many Americans will retire with large stocks of accumulated wealth. However, little is known about how quickly retirees will spend down their IRA and DC assets, or how these funds affect consumption patterns. People who have not annuitized much of their retirement wealth run the risk of spending too quickly and depleting their assets before they die.

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[2] Authors' computations based estimates reported in tables B1 and B2 from Goss (2005). Workers who earn at least the maximum amount covered by Social Security in all years would receive maximum benefits.

Or they might spend too slowly, out of fear of running out of money, and not enjoy as comfortable a retirement as they could afford.

We find no evidence that older adults are afraid to draw down their assets to finance consumption. That is, our analysis of data from a nationally representative survey of older Americans shows that retirees with little annuitized wealth spend more than other retirees—even after controlling for income, wealth, and other personal characteristics. Annuitized wealth from Social Security, pensions and private annuity contracts, and SSI represents 55 percent of total wealth for typical married adults and 59 percent of total wealth for unmarried adults. When the share of wealth annuitized declines by 10 percentage points, household spending increases by 3 percent for married adults and 4 percent for unmarried adults. Pension wealth has a bigger effect on the expenditures of married adults, while Social Security wealth has a bigger effect on the expenditures of unmarried adults.

Discretionary spending on items such as transportation, entertainment, gifts, and other consumer durables is more responsive to the degree of annuitization than is basic spending on items such as housing, health care, food, and clothing. For married adults, a 10 percentage point decline in the share of wealth annuitized increases basic spending by 2 percent and discretionary spending by 3 percent. For unmarried adults, basic spending increases by 3 percent, but discretionary spending increases by 8 percent.

As employers abandon traditional DB pensions for DC pensions, and as policymakers consider reforms to privatize the Social Security system, it is important to understand how all of this potentially unannuitized wealth might impact well-being in retirement. According to our simulations, these developments may promote even further spending of retirement resources. The trend away from DB pensions toward DC pensions could increase discretionary spending by as much as 3 percent for married adults and 11 percent for unmarried adults. By comparison, if Social Security was completely privatized, and retirees did not annuitize, discretionary spending could increase by as much as 22 percent for married adults and 38 percent for unmarried adults.

Although we find that older adults with little annuitized wealth spend more than others, it is still unclear how this impacts their retirement security. On the one hand, they are at greater risk of outliving their assets and ending up poor at older ages. On the other hand, seniors with large account balances may be better able to maintain their standards of living when they experience unexpected consumption needs due to health shocks, for example, because can draw

down their assets as necessary. Only when data become available for examining consumption paths and the spend-down of assets over time will researchers be able to fully evaluate whether retirees with less of their wealth annuitized are ultimately worse off than others.

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Figure 1. Predicted Household Expenditures by Share of Annuitized Wealth
Married Adults 65+ Who Collect Either SS or SSDI
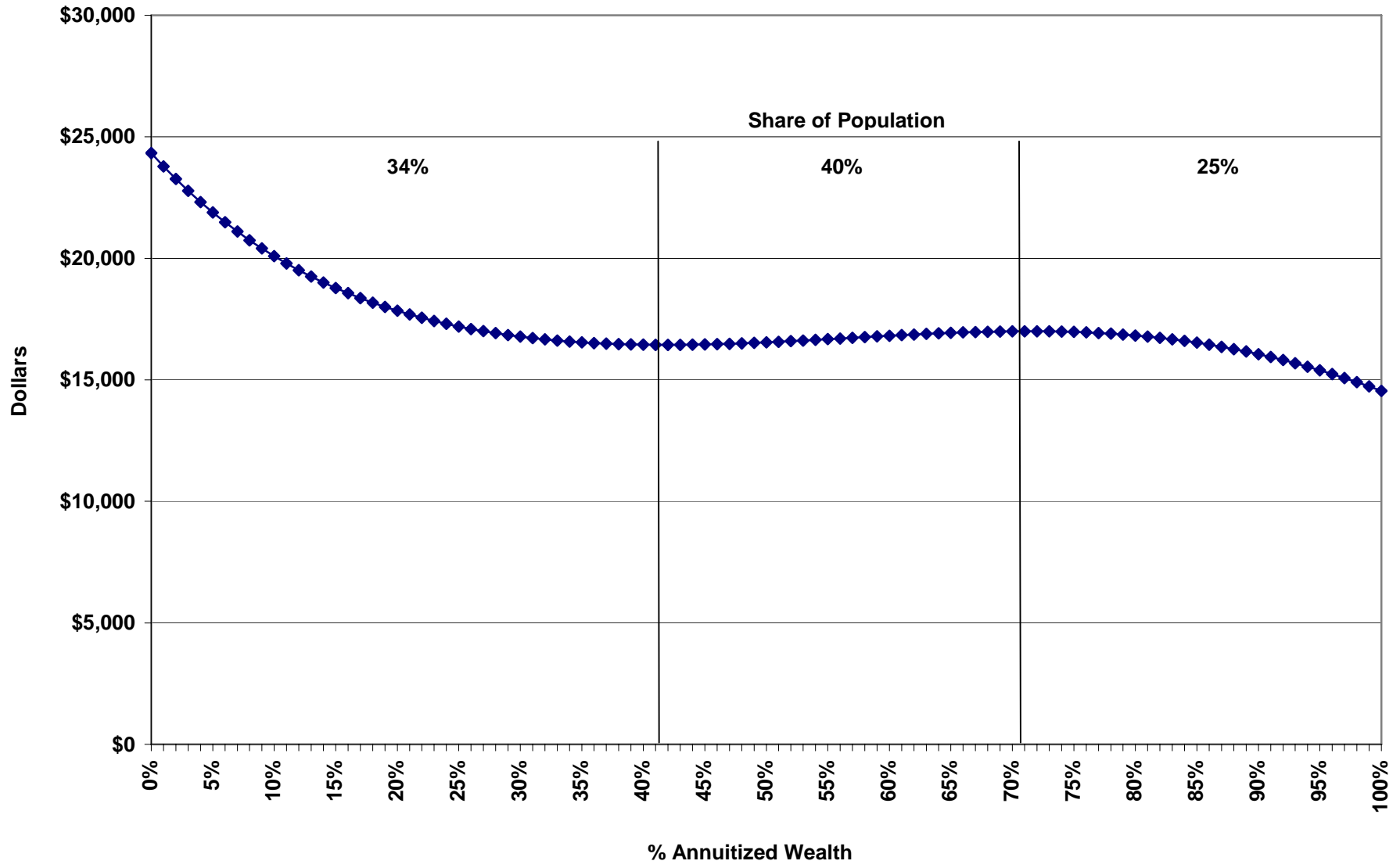
Figure 2. Impact of Decreasing the Share of Annuitized Wealth by 10 Percentage Points on Household Expenditures
Married Adults 65+ Who Collect Either SS or SSDI
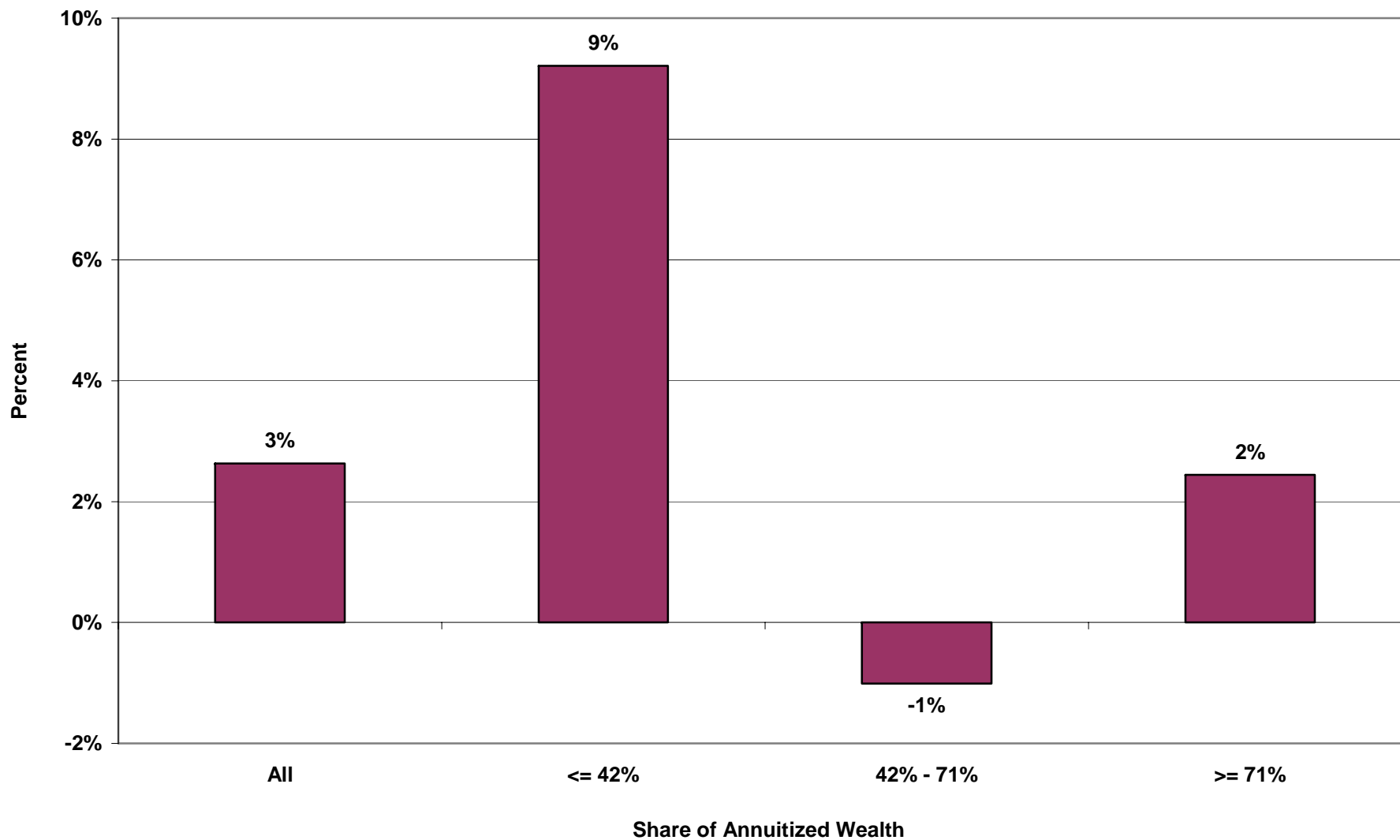
Table 1. Median Per Capita Household Expenditures by the Distribution of Financial Wealth
Adults Ages 65+ Who Collect Either SS or SSDI

		Financial Assets			
	All	**Negative or $0**	**$1 - $25,000**	**$25,001 - $100,000**	**Greater than $100,000**
A. Married					
Share of Observations	100%	11%	30%	25%	34%
Median Expenditures	$16,813	$13,047	$13,958	$16,259	$24,207
Median Share of Expenditures					
Housing	28%	47%	31%	26%	27%
Health Care	19%	15%	20%	22%	10%
Food	13%	12%	16%	14%	9%
Clothing	3%	2%	2%	2%	2%
Transportation	13%	12%	14%	11%	11%
Entertainment	11%	5%	9%	11%	18%
Gifts	9%	3%	6%	12%	14%
Other	3%	4%	1%	3%	8%
Basic	63%	76%	69%	64%	49%
Discretionary	37%	24%	31%	36%	51%
B. Unmarried					
Share of Observations	100%	21%	33%	20%	26%
Median Expenditures	$18,366	$14,157	$14,836	$19,856	$27,216
Median Share of Expenditures					
Housing	41%	41%	40%	33%	39%
Health Care	16%	13%	18%	14%	14%
Food	14%	18%	16%	11%	8%
Clothing	3%	3%	3%	4%	3%
Transportation	10%	12%	13%	9%	11%
Entertainment	7%	5%	5%	12%	10%
Gifts	7%	4%	5%	12%	12%
Other	3%	3%	0%	5%	5%
Basic	73%	75%	76%	61%	63%
Discretionary	27%	25%	24%	39%	37%

Note: The universe is unique respondents in the 2001/2003 CAMS ages 65 and older in the 2000/2002 HRS who report receiving either Social Security (SS) or Social Security Disability Insurance (SSDI) in the 2002/2004 HRS. Estimates are based on a sample of 2,053 married and 1,184 unmarried adults. Basic expenditures include housing, health care, food, and clothing. Discretionary expenditures include transportation, entertainment, gifts, and other consumer durables. The median value is measured as the mean value between the 45th and 55th percentiles of the distribution. All expenditures are expressed in 2005 dollars.

Source: Authors' estimates from the Health and Retirement Study.

Table 2. Mean Per Capita Household Expenditures and Wealth Among Adults with Median Expenditures
Married Adults Ages 65+ Who Collect Either SS or SSDI

	Total Expenses	Total Wealth	Financial Assets	Housing/ Other	Social Security (1)	Pensions /Annuities (2)	SSI (3)	Annuitized Wealth (1)+(2)+(3)
All	$16,813	$377,365	19%	26%	41%	14%	0%	55%
Age								
65-69	17,412	412,137	16	23	43	17	0	60
70-79	16,763	319,282	17	28	41	14	0	55
>=80	14,779	391,381	30	33	30	7	0	37
Race								
Non-Hispanic White	17,277	363,009	17	27	42	15	0	56
Non-Hispanic Black	13,936	139,188	2	20	73	6	0	78
Hispanic	8,704	193,989	1	39	49	11	0	60
Education								
Less than high school	12,049	271,738	12	30	52	6	0	59
GED or high school graduate	15,544	346,606	18	27	44	12	0	56
Some college or more	22,030	545,944	24	25	33	18	0	51
Sex								
Male	17,211	379,120	17	26	43	14	0	57
Female	16,316	374,031	18	29	38	14	0	52
Self-Reported Health								
Excellent / Very Good	19,094	423,471	20	26	39	16	0	55
Good	16,253	342,307	17	29	40	14	0	54
Fair / Poor	14,021	278,715	16	24	50	10	0	60
Employment Status								
Working	19,620	308,407	10	25	55	9	0	65
Not Working	16,500	385,870	20	25	40	15	0	55
Housing Tenure								
Owner / No Mortgage	15,092	429,440	22	32	35	11	0	46
Owner / Mortgage	21,712	418,497	13	28	44	15	0	59
Renter	16,675	161,647	7	3	79	10	1	90
Urban/Rural								
Urban	17,973	331,651	14	24	45	16	0	62
Suburban	17,646	411,903	24	24	40	12	0	52
Rural	14,607	443,163	12	38	40	9	0	49
Income								
Bottom 1/3	12,613	236,178	12	26	56	6	0	62
Middle 1/3	16,784	369,245	20	27	39	14	0	53
Top 1/3	23,889	575,206	23	26	34	17	0	51
Wealth								
Bottom 1/3	12,456	164,561	9	24	60	7	0	68
Middle 1/3	16,666	327,034	17	28	39	16	0	55
Top 1/3	24,842	729,407	31	28	24	17	0	41
Expenditures								
Bottom 1/3	9,344	373,060	21	24	46	9	0	56
Middle 1/3	16,853	363,400	18	25	41	16	0	57
Top 1/3	34,030	585,507	32	22	28	18	0	46

Note: The universe is unique respondents in the 2001/2003 CAMS ages 65 and older in the 2000/2002 HRS who report receiving either Social Security (SS) or Social Security Disability Insurance (SSDI) in the 2002/2004 HRS. Estimates are based on a sample of 2,053 married adults. The median value is measured as the mean value between the 45th and 55th percentiles of the distribution. All amounts are expressed in 2005 dollars. All percentages are computed as the mean ratio (not the ratio of the mean values).

Source: Authors' estimates from the Health and Retirement Study.

Table 3. Mean Per Capita Household Expenditures and Wealth Among Adults with Median Expenditures
Unmarried Adults Ages 65+ Who Collect Either SS or SSDI

	Total Expenses	Total Wealth	Financial Assets	Housing/ Other	Social Security (1)	Pensions /Annuities (2)	SSI (3)	Annuitized Wealth (1)+(2)+(3)
All	$18,366	$330,084	14%	26%	48%	10%	1%	59%
Age								
65-69	18,693	323,827	4	26	59	11	0	70
70-79	18,849	360,077	16	29	45	10	0	55
>=80	17,407	231,031	26	25	40	7	2	49
Race								
Non-Hispanic White	19,189	349,973	16	28	48	9	0	56
Non-Hispanic Black	16,329	132,543	-7	6	91	10	0	101
Hispanic	10,902	116,510	4	11	72	3	9	85
Education								
Less than high school	13,957	154,580	4	24	66	5	0	72
GED or high school graduate	17,321	318,205	20	23	47	9	1	57
Some college or more	25,224	567,173	22	30	31	17	0	48
Sex								
Male	19,338	287,072	11	21	53	14	0	67
Female	18,157	350,230	15	28	46	10	2	57
Self-Reported Health								
Excellent / Very Good	19,886	381,174	19	27	45	9	0	53
Good	17,601	318,647	18	21	48	11	1	60
Fair / Poor	17,595	286,521	13	23	49	11	4	65
Employment Status								
Working	24,129	329,875	12	36	48	4	0	52
Not Working	17,867	351,465	17	24	46	10	2	58
Housing Tenure								
Owner / No Mortgage	18,170	455,272	22	36	33	9	0	42
Owner / Mortgage	25,355	418,562	12	33	43	12	0	55
Renter	15,606	126,684	7	1	77	9	5	91
Urban/Rural								
Urban	19,410	389,566	22	25	39	14	0	53
Suburban	18,638	245,166	5	28	56	11	0	67
Rural	16,751	368,593	15	27	50	5	3	58
Income								
Bottom 1/3	12,764	194,782	12	29	57	1	1	59
Middle 1/3	17,582	339,808	16	24	47	13	1	61
Top 1/3	27,060	664,303	26	27	23	25	0	47
Wealth								
Bottom 1/3	12,464	103,255	9	13	71	5	3	79
Middle 1/3	18,019	245,904	12	32	46	10	0	56
Top 1/3	26,553	732,777	33	30	20	17	0	37
Expenditures								
Bottom 1/3	8,754	223,446	12	22	61	4	0	66
Middle 1/3	18,285	280,534	15	26	50	9	0	59
Top 1/3	38,521	567,196	24	30	30	15	0	46

Note: The universe is unique respondents in the 2001/2003 CAMS ages 65 and older in the 2000/2002 HRS who report receiving either Social Security (SS) or Social Security Disability Insurance (SSDI) in the 2002/2004 HRS. Estimates are based on a sample of 1,184 unmarried adults. The median value is measured as the mean value between the 45th and 55th percentiles of the distribution. All amounts are expressed in 2005 dollars. All percentages are computed as the mean ratio (not the ratio of the mean values).

Source: Authors' estimates from the Health and Retirement Study.

Table 4. Median Per Capita Household Expenditures by Share of Wealth Annuitized
Adults Ages 65+ Who Collect Either SS or SSDI

| | All | Percent of Wealth Annuitized | | | |
		< 25	25 - 50	50 -75	75 -100
A. Married					
Share of Observations	100%	16%	30%	33%	20%
Median Expenditures	$16,813	$26,790	$17,186	$16,815	$13,266
Median Share of Expenditures					
Housing	28%	25%	25%	29%	37%
Health Care	19%	14%	21%	17%	18%
Food	13%	9%	13%	15%	13%
Clothing	3%	3%	3%	3%	2%
Transportation	13%	10%	12%	9%	15%
Entertainment	11%	17%	14%	14%	8%
Gifts	9%	11%	10%	10%	5%
Other	3%	11%	2%	4%	3%
Basic	63%	51%	62%	63%	70%
Discretionary	37%	49%	38%	37%	30%
B. Unmarried					
Share of Observations	100%	15%	28%	25%	30%
Median Expenditures	$18,366	$26,825	$21,303	$18,936	$13,641
Median Share of Expenditures					
Housing	41%	39%	31%	42%	44%
Health Care	16%	15%	16%	11%	16%
Food	14%	8%	12%	12%	13%
Clothing	3%	4%	3%	3%	5%
Transportation	10%	9%	11%	12%	10%
Entertainment	7%	7%	10%	8%	7%
Gifts	7%	16%	13%	8%	5%
Other	3%	3%	5%	3%	0%
Basic	73%	66%	61%	68%	78%
Discretionary	27%	34%	39%	32%	22%

Note: The universe is unique respondents in the 2001/2003 CAMS ages 65 and older in the 2000/2002 HRS who report receiving either Social Security (SS) or Social Security Disability Insurance (SSDI) in the 2002/2004 HRS. Estimates are based on a sample of 2,053 married and 1,184 unmarried adults. Those with more than 100 percent of wealth annuitized are not shown in this table (23 married and 34 unmarried adults). Basic expenditures include housing, health care, food, and clothing. Discretionary expenditures include transportation, entertainment, gifts, and other consumer durables. The median value is measured as the mean value between the 45th and 55th percentiles of the distribution. All expenditures are expressed in 2005 dollars.

Source: Authors' estimates from the Health and Retirement Study.

Table 5. Median Per Capita Household Expenditures by Share of Wealth Annuitized and Income
Adults Ages 65+ Who Collect Either SS or SSDI

		Percent of Wealth Annuitized			
	All	< 25	25 - 50	50 -75	75 -100
A. Married					
All	$16,813	$26,790	$17,186	$16,815	$13,266
Income					
Bottom 1/3	12,613	17,060	12,768	12,885	10,831
Middle 1/3	16,784	24,123	16,815	17,977	13,502
Top 1/3	23,889	32,518	24,467	22,465	20,621
B. Unmarried					
All	$18,366	$26,825	$21,303	$18,936	$13,641
Income					
Bottom 1/3	12,764	16,718	15,242	15,327	10,035
Middle 1/3	17,582	23,199	19,205	16,815	15,130
Top 1/3	27,060	35,297	27,931	30,286	20,703

Note: The universe is unique respondents in the 2001/2003 CAMS ages 65 and older in the 2000/2002 HRS who report receiving either Social Security (SS) or Social Security Disability Insurance (SSDI) in the 2002/2004 HRS. Estimates are based on a sample of 2,053 married and 1,184 unmarried adults. Those with more than 100 percent of wealth annuitized are not shown in this table (23 married and 34 unmarried adults). The median value is measured as the mean value between the 45th and 55th percentiles of the distribution. All expenditures are expressed in 2005 dollars.

Source: Authors' estimates from the Health and Retirement Study.

Table 6. Median Per Capita Household Expenditures by Share of Wealth from Social Security and Pensions
Adults Ages 65+ Who Collect Either SS or SSDI

	All	Percent of Wealth Held in Social Security				All	Percent of Wealth Held in Pensions			
		< 25	25 - 50	50 -75	75 -100		0	1 - 25	25 - 50	50 -100
A. Married										
Share of Observations	100%	31%	40%	19%	10%	100%	40%	40%	15%	4%
Median Expenditures	$16,813	$24,445	$16,371	$14,626	$11,479	$16,813	$15,632	$16,674	$19,302	$19,380
Median Share of Expenditures										
Basic	63%	53%	62%	72%	61%	63%	67%	65%	54%	65%
Discretionary	37%	47%	38%	28%	39%	37%	33%	35%	46%	35%
B. Unmarried										
Share of Observations	100%	27%	32%	21%	19%	100%	54%	30%	12%	3%
Median Expenditures	$18,366	$26,574	$19,404	$16,176	$11,567	$18,366	$15,750	$21,961	$22,219	$24,901
Median Share of Expenditures										
Basic	73%	61%	71%	79%	85%	73%	77%	65%	61%	68%
Discretionary	27%	39%	29%	21%	15%	27%	23%	35%	39%	32%

Note: The universe is unique respondents in the 2001/2003 CAMS ages 65 and older in the 2000/2002 HRS who report receiving either Social Security (SS) or Social Security Disability Insurance (SSDI) in the 2002/2004 HRS. Estimates are based on a sample of 2,053 married and 1,184 unmarried adults. Those with more than 100 percent of wealth held in Social Security are not shown in this table (12 married and 18 unmarried adults). Basic expenditures include housing, health care, food, and clothing. Discretionary expenditures include transportation, entertainment, gifts, and other consumer durables. The median value is measured as the mean value between the 45th and 55th percentiles of the distribution. All expenditures are expressed in 2005 dollars.

Source: Authors' estimates from the Health and Retirement Study.

Table 7. Means of Regression Variables
Adults Ages 65+ Who Collect Either SS or SSDI

	Married		Unmarried		
	Mean	**Std. Error**	**Mean**	**Std. Error**	**Diff.**
Total Expenditures	22,422	430	27,452	1,135	***
Log of Total Expenditures	9.762	0.015	9.812	0.027	
Basic Expenditures	12,873	275	16,883	581	***
Log of Basic Expenditures	9.218	0.015	9.386	0.025	***
Discretionary Expenditures	9,549	269	10,569	884	
Log of Discretionary Expenditures	8.623	0.025	8.223	0.051	***
Age	71.7	0.1	75.2	0.2	***
Race					
Non-Hispanic White (dropped)	0.911	0.006	0.855	0.010	***
Non-Hispanic Black	0.050	0.005	0.100	0.009	***
Hispanic	0.039	0.004	0.045	0.006	
Education					
Less than high school	0.225	0.009	0.288	0.013	***
GED or high school graduate (dropped)	0.368	0.011	0.400	0.014	*
Some college or more	0.408	0.011	0.313	0.013	***
Sex					
Male (dropped)	0.562	0.011	0.202	0.012	***
Female	0.438	0.011	0.798	0.012	***
Self-Reported Health					
Excellent / Very Good	0.454	0.011	0.395	0.014	***
Good (dropped)	0.306	0.010	0.347	0.014	**
Fair / Poor	0.241	0.009	0.258	0.013	
Employment Status					
Working	0.100	0.007	0.094	0.008	
Not Working (dropped)	0.900	0.007	0.906	0.008	
Housing Tenure					
Owner / No Mortgage (dropped)	0.683	0.010	0.567	0.014	***
Owner / Mortgage	0.256	0.010	0.181	0.011	***
Renter	0.060	0.005	0.252	0.013	***
Urban/Rural					
Urban	0.404	0.011	0.417	0.014	
Suburban (dropped)	0.291	0.010	0.299	0.013	
Rural	0.306	0.010	0.284	0.013	
Income	28,314	817	26,301	938	
Log of Income	9.956	0.015	9.855	0.021	***
Wealth	455,591	11,605	393,088	13,838	***
Log of Wealth	12.717	0.017	12.443	0.027	***
Marital Status*Sex					
Divorced Male			0.064	0.007	
Widowed Male			0.110	0.009	
Never Married Male			0.028	0.005	
Divorced Female			0.152	0.010	
Widowed Female (dropped)			0.608	0.014	
Never Married Female			0.039	0.006	
Spouse Age	70.3	0.2			
Spouse Education					
Less than high school	0.220	0.009			
GED or high school graduate (dropped)	0.372	0.011			
Some college or more	0.408	0.011			
Spouse Self-Reported Health					
Excellent / Very Good	0.455	0.011			
Good (dropped)	0.303	0.010			
Fair / Poor	0.243	0.009			
Spouse Employment Status					
Working	0.133	0.008			
Not Working (dropped)	0.867	0.008			
Year 2003	0.123	0.007	0.174	0.011	***
% Wealth Annuitized	0.529	0.005	0.584	0.009	***
% Wealth Held in Social Security	0.400	0.005	0.473	0.009	***
% Wealth Held in Pensions	0.127	0.004	0.099	0.005	***

Note: The universe is unique respondents in the 2001/2003 CAMS ages 65 and older in the 2000/2002 HRS who report receiving either Social Security (SS) or Social Security Disability Insurance (SSDI) in the 2002/2004 HRS. Estimates are based on a sample of 2,053 married and 1,184 unmarried adults. Basic expenditures include housing, health care, food, and clothing. Discretionary expenditures include transportation, entertainment, gifts, and other consumer durables. All amounts are expressed in 2005 per capita dollars. $* p < .10; ** p < .05;$ $*** p < .01$

Source: Authors' estimates from the Health and Retirement Study.

Table 8. Coefficients from Median Regressions of Per Capita Household Expenditures
Married Adults Ages 65+ Who Collect Either SS or SSDI

	Log of Expenditures	Log of Expenditures	Log of Basic Expenditures	Log of Basic Expenditures	Log of Discretionary Expenditures	Log of Discretionary Expenditures
Age	0.142 ***	0.141 **	0.090 **	0.108 **	0.147 *	0.087
Age Squared	-0.001 ***	-0.001 **	-0.001 *	-0.001 *	-0.001 *	-0.001
Race						
Non-Hispanic White (dropped)						
Non-Hispanic Black	0.034	-0.002	0.028	0.037	0.051	0.086
Hispanic	-0.278 ***	-0.279 ***	-0.232 ***	-0.260 ***	-0.214 **	-0.253 ***
Education						
Less than high school	-0.081 ***	-0.047	-0.052 *	-0.028	-0.066	-0.050
GED or high school graduate (dropped)						
Some college or more	0.071 ***	0.058 *	0.010	0.028	0.155 ***	0.161 ***
Sex						
Male (dropped)						
Female	-0.021	-0.019	-0.032	-0.019	-0.014	-0.033
Self-Reported Health						
Excellent / Very Good	0.028	0.025	0.028	0.025	-0.062	-0.068 *
Good (dropped)						
Fair / Poor	0.025	0.014	0.064 **	0.054	-0.133 **	-0.163 ***
Employment Status						
Working	0.055 *	0.055	0.137 ***	0.140 ***	-0.030	-0.008
Not Working (dropped)						
Housing Tenure						
Owner / No Mortgage (dropped)						
Owner / Mortgage	0.273 ***	0.280 ***	0.484 ***	0.494 ***	0.070	0.046
Renter	0.217 ***	0.205 ***	0.353 ***	0.380 ***	0.059	0.011
Urban/Rural						
Urban	0.004	-0.002	-0.007	-0.001	-0.045	-0.068 *
Suburban (dropped)						
Rural	-0.094 ***	-0.116 ***	-0.114 ***	-0.107 ***	-0.110 **	-0.102 **
Log Income	0.157 ***	0.173 ***	0.087 ***	0.070 **	0.274 ***	0.270 ***
Log Wealth	0.244 ***	0.297 ***	0.171 ***	0.236 ***	0.383 ***	0.440 ***
Spouse Age	0.038 ***	0.032	0.027 *	0.018	0.017	0.024
Spouse Age Squared	0.000 **	0.000	0.000	0.000	0.000	0.000
Spouse Education						
Less than high school	-0.111 ***	-0.087 **	-0.050 *	-0.046	-0.099 *	-0.054
GED or high school graduate (dropped)						
Some college or more	0.076 ***	0.087 **	0.036	0.028	0.139 ***	0.151 ***
Spouse Self-Reported Health						
Excellent / Very Good	0.031	0.028	0.037	0.020	-0.027	-0.025
Good (dropped)						
Fair / Poor	0.045 *	0.031	0.041	0.026	-0.155 ***	-0.159 ***
Spouse Employment Status						
Working	0.078 ***	0.113 **	0.141 ***	0.134 ***	0.053	0.065
Not Working (dropped)						
Year 2003	0.065 **	0.049	0.040	0.031	0.155 ***	0.126 **
% Wealth Annuitized	-2.331 ***		-0.050		-2.353 **	
% Wealth Annuitized Squared	4.421 ***		-0.207		4.558 **	
% Wealth Annuitized Cubed	-2.605 ***		0.108		-2.809 **	
% Wealth Held in Social Security		0.259		1.419 **		-0.489
% Wealth Held in Social Security Squared		-0.234		-2.618 **		1.100
% Wealth Held in Social Security Cubed		-0.081		1.276 *		-0.728
% Wealth Held in Pensions		-0.879 **		-0.460		-1.038 **
% Wealth Held in Pensions Squared		3.850 **		0.668		5.976 ***
% Wealth Held in Pensions Cubed		-4.287 ***		-0.006		-7.260 ***
Intercept	-1.529	-2.549	1.356	0.003	-4.717	-3.890
Pseudo R-Squared	0.202	0.203	0.157	0.160	0.192	0.195

Note: The universe is unique respondents in the 2001/2003 CAMS ages 65 and older in the 2000/2002 HRS who report receiving either Social Security (SS) or Social Security Disability Insurance (SSDI) in the 2002/2004 HRS. Estimates are based on a sample of 2,053 married adults. * p < .10; ** p < .05; *** p < .01

Source: Authors' estimates from the Health and Retirement Study.

Table 9. Coefficients from Median Regressions of Per Capita Household Expenditures
Unmarried Adults Ages 65+ Who Collect Either SS or SSDI

	Log of Expenditures	Log of Expenditures	Log of Basic Expenditures	Log of Basic Expenditures	Log of Discretionary Expenditures	Log of Discretionary Expenditures
Age	0.061	0.065	0.075	0.078	0.108	0.110
Age Squared	0.000	0.000	0.000	0.000	-0.001	-0.001
Race						
Non-Hispanic White (dropped)						
Non-Hispanic Black	-0.024	-0.030	-0.063	-0.062	-0.228	-0.284 ***
Hispanic	-0.154	-0.169	-0.297 ***	-0.286 ***	-0.530 **	-0.424 ***
Education						
Less than high school	-0.008	-0.040	-0.116 **	-0.121 **	-0.083	-0.054
GED or high school graduate (dropped)						
Some college or more	0.203 ***	0.188 ***	0.096 *	0.107 *	0.243 **	0.216 ***
Self-Reported Health						
Excellent / Very Good	-0.028	-0.001	-0.040	-0.038	-0.035	-0.046
Good (dropped)						
Fair / Poor	0.107	0.089	0.109 *	0.106 *	-0.172	-0.171 **
Employment Status						
Working	0.199 **	0.239 ***	0.224 **	0.228 **	0.114	0.214 *
Not Working (dropped)						
Housing Tenure						
Owner / No Mortgage (dropped)						
Owner / Mortgage	0.234 ***	0.220 ***	0.394 ***	0.380 ***	0.107	0.061
Renter	0.272 ***	0.256 ***	0.339 ***	0.321 ***	0.230 *	0.219 **
Urban/Rural						
Urban	-0.008	-0.018	0.054	0.056	-0.006	-0.004
Suburban (dropped)						
Rural	0.064	0.039	0.044	0.053	0.200 *	0.145 *
Log Income	0.247 ***	0.225 ***	0.147 ***	0.148 ***	0.477 ***	0.486 ***
Log Wealth	0.181 ***	0.142 **	0.114 *	0.119 *	0.212 *	0.184 **
Marital Status*Sex						
Divorced Male	-0.022	0.010	-0.031	-0.046	0.310	0.290 **
Widowed Male	0.085	0.090	-0.070	-0.071	0.137	0.038
Never Married Male	-0.090	-0.094	-0.265 *	-0.252 *	-0.207	-0.179
Divorced Female	0.016	-0.009	-0.056	-0.051	-0.084	-0.130
Widowed Female (dropped)						
Never Married Female	-0.243 *	-0.222 *	-0.307 **	-0.311 **	-0.198	-0.169
Year 2003	-0.036	-0.023	-0.047	-0.054	-0.141	-0.154
% Wealth Annuitized	-0.374 **		-0.303 **		-0.783 ***	
% Wealth Held in Social Security		-0.485 ***		-0.262 *		-0.960 ***
% Wealth Held in Pensions		-0.188		-0.254		-0.377
Intercept	2.718	3.378	3.580	3.311	-2.157	-1.817
Pseudo R-Squared	0.158	0.158	0.109	0.109	0.164	0.165

Note: The universe is unique respondents in the 2001/2003 CAMS ages 65 and older in the 2000/2002 HRS who report receiving either Social Security (SS) or Social Security Disability Insurance (SSDI) in the 2002/2004 HRS. Estimates are based on a sample of 1,184 unmarried adults. * p < .10; ** p < .05; *** p < .01

Source: Authors' estimates from the Health and Retirement Study.

**Table 10. Impact of Decreasing the Share of Wealth Annuitized by
10 Percentage Points on Per Capita Household Expenditures
Adults Ages 65+ Who Collect Either SS or SSDI**

	Married			Unmarried		
	Total Wealth	Social Security Wealth	Pension Wealth	Total Wealth	Social Security Wealth	Pension Wealth
A. Baseline						
% Wealth Annuitized	55%	41%	14%	59%	48%	10%
Median Expenditures	$16,813	$16,813	$16,813	$18,366	$18,366	$18,366
B. Simulation						
% Wealth Annuitized	45%	31%	4%	49%	38%	0%
% Change in Total Expenditures	3%	-1%	6%	4%	5%	2%
% Change in Basic Expenditures	2%	-2%	3%	3%	3%	3%
% Change in Discretionary Expenditures	3%	1%	7%	8%	10%	4%

Note: The universe is unique respondents in the 2001/2003 CAMS ages 65 and older in the 2000/2002 HRS who report receiving either Social Security (SS) or Social Security Disability Insurance (SSDI) in the 2002/2004 HRS. Estimates are based on a sample of 2,053 married and 1,184 unmarried adults. Basic expenditures include housing, health care, food, and clothing. Discretionary expenditures include transportation, entertainment, gifts, and other consumer durables. The median value is measured as the mean value between the 45th and 55th percentiles of the distribution. All expenditures are expressed in 2005 dollars.

Source: Authors' estimates from the Health and Retirement Study.

**Table 11. Impact of Different Annuitized Wealth Scenarios on
Per Capita Household Expenditures
Adults Ages 65+ Who Collect Either SS or SSDI**

	Married	Unmarried
A. Baseline		
% Wealth Annuitized	55%	59%
Median Expenditures	$16,813	$18,366
B. Simulations		
Convert DB to DC Pensions		
% Wealth Annuitized	41%	49%
% Change in Total Expenditures	2%	5%
% Change in Basic Expenditures	2%	4%
% Change in Discretionary Expenditures	3%	11%
25% of Social Security is Diverted to PRA		
% Wealth Annuitized	45%	47%
% Change in Total Expenditures	1%	4%
% Change in Basic Expenditures	2%	3%
% Change in Discretionary Expenditures	2%	8%
50% of Social Security is Diverted to PRA		
% Wealth Annuitized	34%	35%
% Change in Total Expenditures	3%	8%
% Change in Basic Expenditures	3%	7%
% Change in Discretionary Expenditures	4%	17%
All of Social Security is Diverted to PRA		
% Wealth Annuitized	14%	11%
% Change in Total Expenditures	21%	18%
% Change in Basic Expenditures	6%	15%
% Change in Discretionary Expenditures	22%	38%

Note: The universe is unique respondents in the 2001/2003 CAMS ages 65 and older in the 2000/2002 HRS who report receiving either Social Security (SS) or Social Security Disability Insurance (SSDI) in the 2002/2004 HRS. Estimates are based on a sample of 2,053 married and 1,184 unmarried adults. Basic expenditures include housing, health care, food, and clothing. Discretionary expenditures include transportation, entertainment, gifts, and other consumer durables. The median value is measured as the mean value between the 45th and 55th percentiles of the distribution. All expenditures are expressed in 2005 dollars.

Source: Authors' estimates from the Health and Retirement Study.

	Total Expenses	Total Wealth	Financial Assets	Housing Equity	Other Assets	Social Security (1)	Pensions /Annuities (2)	SSI (3)	Annuitized Wealth (1)+(2)+(3)
All	$16,813	$377,365	$88,888	$62,048	$44,727	$124,741	$56,961	$0	$181,702
Age									
65-69	17,412	412,137	81,380	61,964	38,973	152,326	77,494	0	229,820
70-79	16,763	319,282	71,964	58,581	34,763	105,232	48,742	0	153,974
>=80	14,779	391,381	139,302	99,472	53,786	78,744	20,076	0	98,820
Race									
Non-Hispanic White	17,277	363,009	75,705	60,937	45,341	121,075	59,951	0	181,026
Non-Hispanic Black	13,936	139,188	2,697	22,600	3,130	102,687	8,073	0	110,760
Hispanic	8,704	193,989	3,250	71,868	15,802	80,577	22,493	0	103,069
Education									
Less than high school	12,049	271,738	40,446	59,410	40,475	113,198	18,209	0	131,407
GED or high school graduate	15,544	346,606	82,248	62,015	39,161	127,055	36,127	0	163,183
Some college or more	22,030	545,944	162,097	76,652	65,067	130,841	110,713	574	242,129
Sex									
Male	17,211	379,120	82,807	62,042	45,273	131,177	57,822	0	188,998
Female	16,316	374,031	82,477	66,140	54,447	115,961	55,007	0	170,968
Self-Reported Health									
Excellent / Very Good	19,094	423,471	104,687	61,523	58,700	132,061	66,499	0	198,560
Good	16,253	342,307	70,891	58,395	40,866	114,114	58,041	0	172,155
Fair / Poor	14,021	278,715	74,288	49,714	17,970	104,188	32,553	0	136,742
Employment Status									
Working	19,620	308,407	36,320	60,601	23,993	154,699	32,795	0	187,494
Not Working	16,500	385,870	96,216	66,789	42,374	121,484	59,006	0	180,490
Housing Tenure									
Owner / No Mortgage	15,092	429,440	117,148	70,176	83,543	111,795	46,779	0	158,573
Owner / Mortgage	21,712	418,497	82,295	74,522	52,360	134,483	74,838	0	209,321
Renter	16,675	161,647	13,139	0	4,675	118,661	23,029	2,143	143,832
Urban/Rural									
Urban	17,973	331,651	66,600	62,309	14,839	120,450	67,088	364	187,902
Suburban	17,646	411,903	148,032	57,327	35,335	120,871	50,338	0	171,209
Rural	14,607	443,163	76,515	53,526	166,213	109,125	37,784	0	146,908
Income									
Bottom 1/3	12,613	236,178	36,330	51,628	21,328	112,651	14,241	0	126,892
Middle 1/3	16,784	369,245	88,334	67,665	45,933	122,876	44,436	0	167,313
Top 1/3	23,889	575,206	151,964	74,008	98,541	152,018	98,674	0	250,693
Wealth									
Bottom 1/3	12,456	164,561	15,331	35,262	5,412	95,195	13,360	0	108,556
Middle 1/3	16,666	327,034	57,462	58,324	33,816	124,462	52,969	0	177,431
Top 1/3	24,842	729,407	238,515	107,059	118,189	156,449	109,194	0	265,644
Expenditures									
Bottom 1/3	9,344	373,060	142,517	45,519	32,839	113,858	38,015	311	152,185
Middle 1/3	16,853	363,400	81,632	60,202	36,782	122,097	62,687	0	184,783
Top 1/3	34,030	585,507	223,052	85,235	42,564	132,709	101,948	0	234,657

Note: The universe is unique respondents in the 2001/2003 CAMS ages 65 and older in the 2000/2002 HRS who report receiving either Social Security (SS) or Social Security Disability Insurance (SSDI) in the 2002/2004 HRS. Estimates are based on a sample of 2,053 married adults. The median value is measured as the mean value between the 45th and 55th percentiles of the distribution. All amounts are expressed in 2005 dollars.

Source: Authors' estimates from the Health and Retirement Study.

Table A2. Mean Per Capita Household Expenditures and Wealth Among Adults with Median Expenditures
Unmarried Adults Ages 65+ Who Collect Either SS or SSDI

	Total Expenses	Total Wealth	Financial Assets	Housing Equity	Other Assets	Social Security (1)	Pensions /Annuities (2)	SSI (3)	Annuitized Wealth (1)+(2)+(3)
All	$18,366	$330,084	$72,460	$71,949	$34,254	$105,028	$45,433	$960	$151,421
Age									
65-69	18,693	323,827	36,114	82,961	21,417	133,459	49,320	556	183,335
70-79	18,849	360,077	80,670	76,915	62,215	102,324	37,848	106	140,278
>=80	17,407	231,031	77,179	51,696	18,679	63,713	18,518	1,245	83,476
Race									
Non-Hispanic White	19,189	349,973	73,901	79,866	39,671	115,562	40,906	67	156,535
Non-Hispanic Black	16,329	132,543	4,490	10,847	1,025	95,366	20,640	176	116,182
Hispanic	10,902	116,510	4,422	13,545	4,996	78,418	4,946	10,182	93,546
Education									
Less than high school	13,957	154,580	16,618	34,793	5,941	85,325	11,904	0	97,229
GED or high school graduate	17,321	318,205	94,726	64,775	30,209	97,545	29,228	1,721	128,495
Some college or more	25,224	567,173	168,363	132,815	45,149	113,832	107,014	0	220,845
Sex									
Male	19,338	287,072	70,345	52,328	9,498	102,224	52,677	0	154,901
Female	18,157	350,230	77,548	78,645	40,765	106,039	46,031	1,202	153,271
Self-Reported Health									
Excellent / Very Good	19,886	381,174	91,164	80,570	59,306	119,108	31,026	0	150,134
Good	17,601	318,647	77,339	51,376	53,762	95,820	39,442	909	136,170
Fair / Poor	17,595	286,521	73,113	60,465	3,313	106,711	37,305	5,613	149,628
Employment Status									
Working	24,129	329,875	65,660	109,166	31,083	106,842	17,123	0	123,966
Not Working	17,867	351,465	99,500	70,464	32,703	99,426	47,304	2,068	148,798
Housing Tenure									
Owner / No Mortgage	18,170	455,272	135,231	112,042	53,058	100,919	54,022	0	154,941
Owner / Mortgage	25,355	418,562	89,306	102,543	37,586	126,416	62,711	0	189,127
Renter	15,606	126,684	23,236	0	1,594	78,381	19,710	3,763	101,854
Urban/Rural									
Urban	19,410	389,566	102,986	90,777	14,314	110,938	70,551	0	181,489
Suburban	18,638	245,166	29,565	66,280	14,139	99,320	35,862	0	135,182
Rural	16,751	368,593	109,075	53,576	95,248	92,606	15,294	2,794	110,694
Income									
Bottom 1/3	12,764	194,782	40,544	56,344	5,573	89,920	1,345	1,056	92,321
Middle 1/3	17,582	339,808	87,830	64,160	38,171	115,700	31,814	2,132	149,646
Top 1/3	27,060	664,303	227,036	120,171	68,402	107,753	140,940	0	248,693
Wealth									
Bottom 1/3	12,464	103,255	12,009	11,355	1,671	69,623	5,614	2,983	78,221
Middle 1/3	18,019	245,904	35,283	68,320	7,162	108,907	26,232	0	135,139
Top 1/3	26,553	732,777	272,336	151,797	61,971	121,528	125,145	0	246,674
Expenditures									
Bottom 1/3	8,754	223,446	40,010	58,131	5,798	97,349	21,863	294	119,506
Middle 1/3	18,285	280,534	63,514	64,546	14,329	106,730	31,417	0	138,146
Top 1/3	38,521	567,196	200,683	114,995	42,971	116,132	91,612	803	208,546

Note: The universe is unique respondents in the 2001/2003 CAMS ages 65 and older in the 2000/2002 HRS who report receiving either Social Security (SS) or Social Security Disability Insurance (SSDI) in the 2002/2004 HRS. Estimates are based on a sample of 1,184 unmarried adults. The median value is measured as the mean value between the 45th and 55th percentiles of the distribution. All amounts are expressed in 2005 dollars.

Source: Authors' estimates from the Health and Retirement Study.

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