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The Changing Causes and Consequences of Not Working before Age 62

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Introduction

According to recent data from the Bureau of Labor Statistics, more than one in four men between ages 50 and 61 did not work in June 2011. This statistic includes men who were unemployed and looking for work, as well as those who were no longer in the labor force or never worked. Although the share of nonworking older men increased dramatically because of job losses created by the Great Recession, it has been steadily on the rise since 1990 when only one in five older men was not working. This trend is driven entirely by the rise in older men who are not participating in the labor force. Between 1990 and 2006, the fraction of men ages 50 and 61 who was unemployed fell 18 percent, while the percentage of those not in the labor force increased 10 percent (Bureau of Labor Statistics 2011).

These statistics are particularly alarming when you consider that most adults ages 50 to 61 are not yet eligible for Social Security or pension benefits, and most do not qualify for disability benefits. So who is in this growing group of older nonworkers and how are they supporting themselves? Prior research is concentrated on issues related to labor force retirement, both voluntary and involuntary, as well as Social Security benefit claiming, both at the early entitlement and full retirement ages. Only one previous study we identified focused exclusively on nonworking older adults.

Our paper updates and extends this previous analysis using data from the Health and Retirement Study (HRS) to deepen our understanding of nonworking older adults and how they support themselves before qualifying for Social Security benefits. We examine their characteristics, including health status, lifetime labor force attachment, and living arrangements. We also examine their level of income and assets, but more importantly their sources of income and assets. Finally, we use their characteristics, income, and assets to estimate their likelihood of claiming early Social Security benefits. For each analysis, we compare nonworking and working adults.

Our preliminary results show that the demographic and economic attributes of adults ages 51 to 61 vary significantly by their earnings. Older adults without earnings (i.e. nonworkers) are more likely than those with earnings to be black and Hispanic, to report fair or poor health, and to have health problems that limit the amount or kind of work they can do. They also have significantly less work experience than those with earnings. Also, those with no earnings are significantly more likely than those with earnings to receive Supplemental Security Income

(SSI), Disability Insurance (DI) benefits, and Social Security benefits (as young widow(ers)). They are also more likely to receive government transfers from welfare and food stamps. Yet, a significant share of nonworking adults has income from capital and pensions. And a relatively large fraction of these adults has substantial assets.

We also find that nonworking adults are significantly more likely than workers to claim early Social Security benefits. A number of factors have the expected impact on early Social Security claiming, including race, education, and pension receipt. But the level of earnings and the correlation between spouses' earnings is the key predictor.

It is important for policymakers to understand who stops working early and how they support themselves. Nonworkers may be more likely to apply and qualify for Social Security disability and SSI benefits. Also, more than any other group, nonworkers will be adversely impacted by any increases to the early entitlement age. Finally, nonworkers are especially vulnerable in retirement because they are likely to have lower savings, Social Security benefits, and pensions than workers.

Background

The Great Recession forced record-high numbers of workers out of the labor force and made it difficult for those without jobs to find employment. Between November 2007 and June 2009, when the National Bureau of Economic Research declared the recession over, the employment rate of men ages 50 to 61 declined 4.7 percent and more than one in four men in this age group was not bringing home a paycheck at the recession's peak. Since then, the labor market has remained weak and the employment rate of men in this age group fell another 1.1 percent. By contrast, men ages 62 or older experienced an increase of 3.8 percent in their employment rate between November 2007 and June 2011 (Bureau of Labor Statistics 2011). Many analysts predict that unemployment will stay above its pre-recession level for years (Eberts 2011).

The official unemployment rate understates the recession's impact on the labor market, because it counts only those who are not working at all and continue actively searching for work. It excludes part-time workers who cannot find full-time work and nonworking individuals who dropped out of the labor force because they became discouraged by their poor job prospects.

Counting the underemployed increases the average monthly unemployment rate in 2010 nearly 50 percent for men ages 50 to 61 (Butrica, Johnson, and Smith 2011).

One of the especially troubling aspects of the Great Recession is the high prevalence of long-term unemployment. In 2010, 43 percent of the unemployed had been out of work for more than six months (Johnson and Park 2011a), a larger share than in any previous post-war recession (Vroman 2010). Furthermore, older displaced workers have more trouble than other age groups becoming reemployed. Tracking workers in the U.S. Census Bureau's Survey of Income and Program Participation (SIPP) who lost a job between mid-2008 and the end of 2009, Johnson and Park (2011b) found that only a quarter of those age 50 and older found work within 12 months, compared with more than a third age 25 to 34.

Although unemployment rates soared because of the Great Recession, many of these recent trends are not new. Between 1990 and 2010, the employment rate fell 7.4 percent for men ages 50 to 61 while increasing 25.6 percent for those ages 62 and older (Bureau of Labor Statistics 2011). And older workers who lose their jobs have always found it more difficult than their younger counterparts to become reemployed. Additionally, the impact of the recession on unemployment rates highlights involuntary labor force exits. However, Lachance and Seligman (2008) report that over 70 percent of retirements among adults ages 50 to 67 are voluntary. Of course, to retire one must be in the labor force. But in fact, there are some people who never work at all.

These statistics are concerning because the majority of older adults cannot afford to stop working. Some of those who lost their jobs will qualify for unemployment benefits. But these are paid for a maximum of 26 weeks in most States. Not surprisingly, the number of men age 62 and older who first began collecting Social Security benefits increased 20 percent between 2008 and 2009, in large part because of the recession (Johnson and Mommaerts 2010). But most adults ages 50 to 61 are not yet eligible for Social Security or pension benefits, and most do not qualify for disability benefits. Social Security pays benefits at the full retirement age (FRA), which was 65 but is gradually increasing to 67. But retirees can choose to receive permanently reduced benefits as early as 62, which is the early entitlement age (EEA). While waiting to reach Social Security's EEA, many older adults may be forced to dip into their savings and 401(k) plans to meet current consumption needs, leaving fewer funds available in retirement. This assumes that those who are not working have savings. Unemployment rates in the Great Recession increased

most sharply for low-wage workers, a group who is less likely to have any and certainly not substantial savings to help support themselves until they can secure new jobs.

Previous Research

Numerous studies have analyzed workers' transitions from employment into retirement (Coile and Gruber 2007; French 2005; Gustman and Steinmeir 2005; Zissimopoulos, Maestas, and Karoly 2007). Some analyses have focused on understanding the differences between voluntary and involuntary retirement and found poor health, job loss, and care obligations to be associated with involuntary retirement, while age, pensions, Social Security, and savings are more related to voluntary retirement (Johnson and Mermin 2009; Lachance and Seligman 2008; Smith 2006; Szinovacz and Davey 2005). Other studies have estimated the impact that early retirement has on future retirement benefits. Johnson, Mermin, and Murphy (2007) found that older workers who leave the labor force early have significantly reduced lifetime Social Security and pension wealth.

Distinct from workforce retirement, a number of studies have focused on Social Security retirement. Topics on early Social Security claiming include comparing adults who take early benefits with those who do not (Burkhauser, Couch, and Phillips 1996; Li, Hurd, and Loughran 2008; Mitchell and Phillips 2000; Panis 2002), identifying the optimal age to claim benefits (Coile and Gruber 1999), and measuring the extent to which people use early Social Security benefits as a safety net when their ability to work is limited because of health conditions (Bound and Waidmann 2010) or they experience financial hardship (Johnson and Mermin 2009).

The research question our paper addresses comes closest to that of an earlier study by the Congressional Budget Office (CBO) which used the 2001 Survey of Income and Program Participation (Smith 2004). In that paper the author compares the demographic characteristics, income, assets, and health insurance coverage of adults ages 50 to 61 who described themselves as retired from the labor force with those who described themselves as not in the labor force because of a disability, and those who described themselves as working. The findings indicate that the majority of nonworkers cited the reason for not working as having a chronic health condition or disability. Among nonworkers, the disabled had lower income, higher poverty, and fewer assets than the retired. While the retired also had lower income than workers, they had significantly more assets than workers.

Like the CBO study, our paper analyzes the characteristics and financial resources of nonworking older adults—including those who are unemployed, retired, or who never worked—before Social Security eligibility. To do this, we use recent data from the 2008 Health and Retirement Study (HRS). We define nonworkers on the basis of their reported earnings, rather than their self-reported work status. What complicates our research question is how to treat married adults, since a nonworking respondent is likely to have a working spouse. In fact, Smith (2004) found that almost half of disabled and retired adults got income from the earnings of a spouse or other family member. Nonworkers with working spouses are likely to be significantly better off than those whose spouses also do not work. Since we are most interested in understanding how the latter group gets by before becoming eligible for Social Security, we compare spouses' earnings to separate married adults between those in couples with no earners, one earner, or two earners. We then analyze the demographic and economic characteristics of single adults separately from married adults since most spouses share their household resources and benefit from economies of scale. Finally, we use multivariate analyses to investigate whether nonworkers are more likely than workers to claim early Social Security benefits.

Data and Methods

Our analysis is based on the Health and Retirement Study (HRS) and the RAND HRS Data File (a cleaned and easy-to-use file with imputations for missing values). The HRS is a nationally representative longitudinal survey of older Americans that collects detailed information on earnings, marital status, private income sources, government transfers, assets, work experience, health status, and living arrangements. Conducted by the University of Michigan with primary funding from the National Institute on Aging, it first interviewed respondents born 1931 to 1941 in 1992, when they were ages 51 to 61. Older cohorts were introduced to the survey in 1993 and 1998, and younger cohorts were introduced in 1998 and 2004. Respondents were resurveyed every other year, and the most recent information when this study was completed was collected in 2008.[1]

[1] For additional information on the HRS, visit http://hrsonline.isr.umich.edu.

For our analysis, we restrict our sample to respondents and spouses who are ages 51 to 61 in each wave between 1992 and 2008. We also exclude respondents and spouses who are self-employed. Using self-reported earnings data, we separate our sample into several earnings groups: those with no earnings, those with low earnings, those with medium earnings, and those with high earnings. For married adults, our earnings groups are based on the respondent's *and* spouse's earnings. First, we group married adults into no-earner, one-earner, and two-earner couples. For married adults with one or two earners, we then create earnings groups comparing the level of the respondent's earnings (none, low, medium, or high) with the level of their spouse's earnings (none, low, medium, or high). We construct these earnings groups for each wave. Our definition of no earnings includes annual earnings below the amount needed to earn one quarter of Social Security coverage, which was $1,120 in 2011. We then define low, medium, and high earnings by looking at the distribution of annual earnings greater than or equal to the quarter of coverage amount for the combined sample of single and married adults. Low earnings fall in the bottom third, medium are in the middle third, and high earnings are in the top third of the earnings distribution.

Descriptive Analyses

For the descriptive analyses, we use only the 2008 HRS information. Our sample restrictions are the same as those described above. Our final sample includes 2,631 respondents—991 who are single and 1,640 who are married. In 2008, 36.6 percent of single adults had no earnings, 25.1 percent had low earnings, and 21.2 percent had medium earnings (table 1). Only 17.1 percent had high earnings. Among married adults, 11.0 percent had no earnings from either spouse. Another 33.8 percent were one-earner couples (10.0 percent low earners, 10.1 percent medium earners, and 13.7 percent high earners). Finally, 55.2 percent of married adults were two-earner couples (6.6 percent two low earners, 7.0 percent two medium earners, 8.0 percent two high earners, and the rest a mix of low, medium, and high earners).

Multivariate Analyses

Using multivariate analyses, we examine whether individuals who don't work before age 62 are more likely than workers to claim early Social Security benefits—at the EEA or before their FRA. To do this, we pool the data from all HRS waves. Our sample restrictions are the same as

those described above. In addition, we exclude those who are already receiving Social Security benefits or who receive them before age 62, as well as those who are ineligible for Social Security benefits based on their own or their spouse's earnings records.[2]

We estimate a number of models to test whether the decision about when to claim Social Security benefits is correlated with an individual's characteristics at age 60. We're primarily interested in how being a nonworker at age 60 influences the likelihood of early Social Security benefit take-up, and whether the likelihood of early claiming differs for nonworkers and workers. Thus, our key independent variable is the respondent's earnings group (as defined above) at age 60.[3]

Our first model is a probit of the decision to claim benefits before the FRA. For this specification, instead of using the self-reported age of earliest Social Security receipt, we construct our own indicator of Social Security take-up using respondents' Social Security retirement income as reported in the HRS and flagging the wave, and hence the age, at which they first report receiving positive income.[4] We estimate separate models for single adults and married adults. Our sample for this analysis includes 1,374 singles and 2,327 married individuals.

Our second model is a probit of the decision to claim benefits at the EEA and our third model is an ordinary least squares (OLS) regression of the age of initial claiming. Both models use the respondent's self-reported age of first benefit receipt. We estimate separate models for single adults and married adults. Our sample for these analyses includes 1,090 singles and 2,106 married individuals.

The hazard framework provides another natural way to analyze the claiming decision. Therefore, we also estimate a discrete-time multivariate hazard model that controls for the same set of variables used in the probit and regression models, as well as the elapsed time since the respondent first became eligible to claim Social Security benefits. Individuals enter our sample at

[2] Given the lack of complete earnings histories in the HRS, the current draft of the paper uses an imperfect measure of eligibility using only the self-reported total years of work and deeming eligible those who as of age 60 have reported at least 10 years. Future versions of the paper will use Social Security Administration earnings records, matched to the HRS to better determine eligibility status.

[3] For married adults, we essentially capture the claiming decision of the spouse that first reaches Social Security eligibility and how that varies depending on the earnings group the couple falls into.

[4] Future drafts of the paper will improve on the accuracy of this measure by using actual benefit receipt data from the SSA matched records.

age 62, the age of first eligibility, and they exit when they claim benefits or when we no longer observe them. A completed spell in this context refers to the period of claiming delay, which begins at age 62 and ends when individuals claim benefits. Individuals who exit our sample before claiming benefits are considered right censored. All spells are measured in years.

We use maximum likelihood to derive the coefficient estimates. This approach takes care of the potential problems with right censoring.[5] Each censored spell contributes to the likelihood with the discrete survival function, so we are acquiring the maximum information from people who were censored by utilizing the fact that they survived until the time of the censoring. As for the completed spells, they contribute to the likelihood with the discrete time density function. Further, we chose a logistic functional form for the hazard function, where $h_{it} = \frac{e^{x_{it}\beta}}{1+e^{x_{it}\beta}}$ and $x_{it}\beta$ includes the same vector of characteristics at age 60 as in the previous models, in addition to a variable that controls for the elapsed time since age 62.

The discrete-time set up of the model allows for straightforward interpretation of the yearly transition probabilities in terms of a latent variable y*, defined such that an exit occurs if y* is greater than zero, and no exit occurs otherwise. The set-up is identical to a binary regression model with the assumption that the error term has the logistic distribution.[6] The hazard is estimated separately for single and married adults. The final sample includes 3,094 person-year observations for singles and 5,195 person-year observations for married individuals.

Results

We begin by describing the characteristics of adults age 51 to 61. Next we analyze their sources of income. Then we report their median total income and the share of their total income from different income sources. Following that we consider where older adults fall in the distributions of income and assets. Finally, we estimate the likelihood of claiming early Social Security

[5] For the time being we have ignored the role of unobserved heterogeneity.

[6] As an extension to the estimation procedure and as a robustness check to our estimates, we plan to implement a continuous time multivariate hazard model, assuming a Weibull distribution for the hazard function, to allow for more flexibility. The hazard function will take the following form: $h(t, X) = \alpha t^{1-\alpha} \exp(\beta' X)$ and is monotonically increasing if $\alpha>1$ and monotonically decreasing if $\alpha<1$. The model again will be estimated by Maximum Likelihood.

benefits. We present all our results separately by marital status and earnings and report all dollar amounts in 2010 dollars.

Characteristics

Not surprisingly, the characteristics of adults ages 51 to 61 vary significantly by marital status and earnings (table 2). Single adults who have no earnings are more likely than those with earnings to be black and Hispanic, to report fair or poor health, and to have a health problem that limits the amount or kind of work they can do. Those without earnings also have significantly less work experience than those with earnings—working an average of only 22 years compared with 32 years for low earners, 34 years for medium earners, and 36 years for high earners. One in ten single adults without earnings has never worked at all. Unless they were formerly married to a working spouse or marry one in the future, these people will never be eligible for Social Security benefits.

Many of the differences in the characteristics of single adults by earnings are observed for married adults. Married adults who have no earnings appear more disadvantaged than those with one earner and especially those with two earners. Those in no-earner couples are 2.7 times more likely than those in one-high-earner couples and 12.0 times more likely than those in two-high-earner couples to have a respondent with a work limiting health condition (compare 48 percent of no-earners with 18 percent of one high-earner and 4 percent of two high-earners). Married adults who have no earnings are also significantly more likely than other married adults to have a spouse with a work limiting health condition. They also have significantly less work experience than married adults with earnings, particularly when compared with married adults who have two earners.

Income Sources

The income sources of older adults also differ significantly by marital status and earnings (table 3). Our measure of total income includes earnings (wages and salaries, professional practice or trade income, and tips and bonuses), capital income (business income, rental income, and income from assets including stocks, bonds, checking accounts, certificates of deposit, and IRA withdrawals), income from pensions and annuities, Supplemental Security Income (SSI), Disability Insurance (DI) benefits, Social Security benefits, unemployment and worker's

compensation, government transfers (veterans' benefits, welfare benefits, and food stamps), and other income (lump sum income from pensions, inheritances, and insurance).

We find that single adults without earnings are significantly more likely than those with earnings to receive SSI, DI, and Social Security benefits. About 18 percent of no-earners receive SSI benefits, compared with only 2 percent of low earners and less than 1 percent of medium and high earners. Additionally, 29 percent of no-earners receive DI benefits compared with only 2 percent of low earners and less than 1 percent of medium and high earners.

Most people know that Social Security pays spouse benefits, available beginning at age 62, and widow(er) benefits, available beginning at age 60. Few people may realize that Social Security also pays benefits to spouses under age 62 who care for the young or disabled children of retired, deceased, or disabled workers. Close to 17 percent of single no-earners receive Social Security benefits, compared with only about 5 percent of low earners and less than 1 percent of medium and high earners.

Less than 1 percent of single no-earners receive unemployment or workers' compensation, suggesting that the majority of these people are not in the labor force. In contrast, 13 percent of low earners, and 6 percent of medium and high earners report getting this income source.

Almost a third of single adults without earnings have government transfers from welfare and food stamps compared with only 13 percent of low earners, 5 percent of medium earners, and 4 percent of high earners. In addition, single adults with no earnings are somewhat more likely than their counterparts to report pension and "other" income. In contrast, they are less likely than their counterparts to report capital income and unemployment insurance or worker's compensation. About 10 percent of single adults without earnings report having no income at all.

Among married adults, respondents and spouses in no-earner couples are much more likely than those in one-earner and two-earner couples to receive income from SSI, DI, Social Security, and government transfers. No-earners are also more likely to receive pension benefits than earners. In addition, close to 60 percent of married adults without earnings have capital income and 13 percent have income from other private sources—more than the fraction of married adults in any of the other earnings groups.

Median Income

Table 4 reports average total income between the 40th and 60th percentiles of the distribution.[7] 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 20 percent of the sample, our statistic better describes the level and composition of income for typical cases. The first row of table 4 reports mean income and the rest of the rows report the share of total income from a particular income source.

The middle 20 percent of single adults without earnings have significantly less total income than those with earnings. Their incomes average only $10,400 compared with $23,700 for low earners, $46,400 for medium earners, and $84,500 for high earners. Among single adults with no earnings, the largest income source is DI benefits (40 percent of total income), followed by SSI (24 percent of total income), Social Security (14 percent of total income), and government transfers (12 percent of total income). Income from capital represents 7 percent of total income. In comparison, earnings are the primary source of income among single adults with earnings. Earnings comprise 89 percent of total income for low earners, 95 percent of total income for medium earners, and 96 percent of total income high earners. In contrast to single adults without earnings, income from capital is an insignificant share of total income for those with earnings. In addition to their earnings, low earners support themselves with unemployment and worker's compensation (5 percent of total income) and government transfers (4 percent of total income).

The middle 20 percent of married adults with no earnings have an average income of only $20,400—40 percent less than the average income of married adults in one low-earner couples and 89 percent less than the average income of married adults in two high-earner couples. Among married no-earners, the largest income source is Social Security benefits of respondents and their spouses (37 percent of total income), followed by DI benefits (35 percent of total income), and government transfers (11 percent of total income). SSI benefits account for only 9 percent of total income, a significantly smaller share than for single no-earners. Income from capital comprises 6 percent of total income, a similar share as for single no-earners.

[7] Income distributions are computed separately for single and married adults by earnings groups.

Earnings are the primary source of income for married adults with earnings. Among married adults in one-earner couples, earnings from respondents and their spouses comprise 56 percent of total income for low earners, 86 percent of total income for medium earners, and 88 percent of total income for high earners. Among married adults in two-earner couples, earnings comprise between 84 and 99 percent of total income, depending on the earnings group.

DI benefits are an important source of income for married adults in one low-earner couples (18 percent of total income). Pensions are also an important source of income for married adults in one low-earner couples (10 percent of total income), as well as for those in one high-earner couples (9 percent of total income) and two low-earner couples (15 percent of total income).

Figure 1 compares total income including and excluding earnings to emphasize the important role that earnings play in economic well-being. For single and married adults, income differences by earnings groups completely disappear and in some cases are reversed when earnings are excluded. Among single adults, mean total income ranges from $24,000 for low earners to $84,000 for high earners. When we exclude earnings, mean income is only about $3,000 for low, medium, and high earners—considerably less than the $10,000 that no-earners have. Among married adults, average income for two high-earner couples drops from $194,000 when earnings are counted to only $9,000 when earnings are excluded—considerably less than the $20,000 that no-earner couples have.

Median Assets

Next we consider older adults' assets and how they vary by marital status and earnings. Ignoring assets is likely to understate economic well-being since people can borrow against or liquidate their assets to maintain their standard of living. In fact, a number of studies have shown that broader measures of resources enhance the well-being of adults age 65 and older relative to the official poverty measure (Butrica, Murphy, and Zedlewski 2010; Citro and Michael 1995; Hurd and Rohwedder 2006; Johnson and Smeeding 2000; NAS 2005; Wolff, Zacharias, and Kum 2007).

Our measure of total assets 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.

Among single adults, only 71 percent of no-earners have assets compared with 77 percent of low earners, 91 percent of medium earners and 95 percent of high earners (figure 2). Median assets for no-earners are only $7,000. In comparison, they are three times higher for low earners ($24,000), almost 12 times higher for medium earners ($81,000), and 39 times higher for high earners ($270,000).

Married adults without earnings are much more likely than their single counterparts to have assets (87 percent of married adults versus 71 percent of singles). And the typical married adult without earnings has much higher assets than the typical single adult with no earnings ($188,000 for married adults versus $7,000 for singles). While married adults in no-earner couples have lower assets than many of those in couples with earnings, their median assets are still higher than those of married adults in one low-earner couples, two low-earner couples, and two medium-earner couples. These patterns and relative differences are identical for non-housing assets (not shown).

Poverty Rates and the Distribution of Income and Assets

Given their low average incomes, it's not surprising that poverty rates are highest among no-earners (table 5). More than half (55 percent) of single adults and a third (38 percent) of married adults without earnings are poor. Even those with low earnings have significantly lower poverty rates than those with no earnings—only 15 percent of single low-earners and 6 percent of married adults in one low-earner couples.

Next we considered where single and married adults without earnings fall in the distributions of income and assets, which we computed separately by marital status only. As expected, the majority of adults without earnings have incomes in the bottom quintile of the income distribution, while the majority of those with high earnings have incomes in the top quintile. However, a different pattern emerges with assets. One in three single adults with no earnings has assets in the bottom quintile of the distribution, but one in seven has assets in the top quintile. Similarly, one in three married adults without earnings has assets in the bottom quintile, but one in four has assets in the top quintile—more than any other one-earner couples and most two-earner couples..

Figure 3 looks at the distribution of total assets among adults in the bottom income quintile. A third of single adults without earnings also have assets in the bottom of the distribution, but 12 percent have assets in the top of the distribution. Almost half of married adults without earnings also have the lowest assets, but another fifth have the highest assets—more than any other adults in the bottom income quintile.

Multivariate Analyses of the Likelihood of Claiming Early Social Security Benefits

In this section, we examine how individuals' attributes at age 60 are correlated with their likelihood of claiming Social Security benefits before the FRA. We're particularly interested in whether the probability of early take-up differs for nonworkers and workers.

Table 6 presents results from our first three models for single adults. The first two columns show the coefficients and marginal effects from a probit model of the probability of claiming benefits before the FRA (and after age 62). The second two columns present coefficients and marginal effects from a probit model of the decision to claim at the EEA. The last column shows the coefficients from an OLS regression of the age of first benefit receipt.

The results indicate that single adults with no earnings at age 60 have a significantly higher probability of claiming early benefits relative to those with high earnings. No-earners are 15.2 percentage points more likely to claim before the FRA and 30.5 percentage points more likely to claim immediately at age 62 than are high earners. As expected, the coefficients on the earnings groups flip signs in the OLS regression. They show that single adults with no earnings claim benefits, on average, 10 months earlier than high earners. Relative to high earners, low earners are not statistically more likely to claim benefits at the EEA. However, low earners are 15.0 percentage points more likely than high earners to claim before the FRA and also have an overall lower age of claiming Social Security benefits than high earners.

Like previous studies, we find that being non-Hispanic white is associated with early claiming, while being more educated is associated with later claiming.[8] Since our sample pools respondents from all waves of the HRS, we included the individual's birth year as a control in all

[8] See Coile, Diamond, Gruber and Jousten (1999).

three specifications to capture a possible time trend. [9] In all specifications, the coefficient on birth year is positive and statistically significant—suggesting that younger cohorts might be more likely to claim early Social Security benefits and have an overall lower age of first benefit receipt.

As expected, being in fair or poor health positively influences the likelihood of claiming benefits at the EEA and negatively influences the overall age of first benefit receipt; however, its effect on the probability of claiming before the FRA is not significantly different from zero.

Table 6 also shows that while the levels of net worth and total income excluding earnings do not statistically influence the probability of claiming early benefits, the type of income does have an impact.[10] Single adults who receive income from employer pensions or annuities at age 60 have a higher probability of claiming benefits at the EEA and FRA, and an overall lower age of claiming. Specifically, individuals with pensions are 10.7 percentage points more likely to claim before the FRA and 17.4 percentage points more likely to claim at age 62 than those without pensions. Additionally, single adults with income from capital at age 60 are significantly more likely to claim before the FRA.

Table 7 presents the same models for married adults, but using earnings groups that take account of both spouses' earnings and the correlation between them, and including spouse characteristics. We find that the probability of early claiming is highest among married adults in no-earner couples and decreases progressively for those in one-earner couples with low, medium, and high earnings.[11] Married adults who do not work at age 60 and whose spouses also do not work are 21.5 percentage points more likely to claim before the FRA, 31.4 percentage points more likely to claim at age 62, and about a year younger when they first claim benefits, compared with those in two high-earner couples. A similar trend appears for two-earner couples. Given the level of one spouse's earnings, the probability of early claiming declines as the other

[9] In practice we don't have individuals who are older than age 60 in 2008, because in order for them to be included in our sample we must have observed them having claimed benefits (or reaching FRA without having claimed), which only happens after age 62.

[10] In the next draft of the paper we will explore the wealth effect further by interacting the earnings groups with wealth quintiles, distinguishing between negative and positive net worth, and looking at the different types of wealth (e.g. financial versus housing) to capture any nonlinearities in wealth and to test for heterogeneous wealth effects among the groups.

[11] The reference groups in all the models for married adults are two-earner couples where both spouses have high earnings.

spouse's earnings increase. Relative to the reference group, married adults in two-earner couples where at least one spouse has low earnings are 20.4 percentage points more likely to claim before the FRA if the other spouse also has low earnings, 14.9 percentage points more likely to claim early if the other spouse has medium earnings, and only 11.5 percentage points more likely to claim early if the other spouse has high earnings.

As for single adults, the levels of net worth and total income excluding earnings do not statistically influence married adults' probability of claiming early benefits (except for non-earnings income which is marginally significant). Having income from businesses, interest or dividends, and other capital negatively affects only the age of claiming, while pension receipt is significant in all specifications. Those with pensions at age 60 are 10.4 percentage points more likely to claim before the FRA, 17.0 percentage points more likely to claim before the EEA, and start receiving benefits, on average, five months earlier than married adults without pensions. Receiving unemployment compensation, worker's compensation, or government transfers increase the probability of claiming before the FRA but not the probability of claiming at the EEA. However, those with unemployment or worker's compensation have lower ages of first benefit receipt than those without these income sources.

Having a spouse with pension income increases the probability that a married adult will claim at age 62 by 9.3 percentage points, while having a spouse with DI benefits increases the likelihood that a married adult claims before the FRA by 10.8 percentage points and reduces the age of claiming by almost 4 months.

Among married individuals, women are significantly more likely to claim early, as are non-Hispanic whites and those with fewer years of education. Similar to the results for singles, birth year positively affects the likelihood of early claiming—suggesting younger cohorts tend to claim benefits earlier. Another interesting result is the coefficient on couple age difference. The negative coefficient means that the older the respondent in relation to the spouse, the less likely the respondent will be to claim early or the more likely the respondent will be to delay claiming. However, the effect is quite small as each year of age between the respondent and spouse decreases the respondent's probability of claiming before the FRA by only 0.7 percentage points.

Table 8 reports results from the claiming hazard models for single and married adults. Importantly, the way we defined the hazard in this framework means that the signs of the

coefficients will have the same intuitive interpretation as in the probit models above. The table shows estimated marginal effects of various characteristics on the likelihood of claiming.

The results are consistent with the previous models. Not having earnings at age 60 substantially increases the probability of claiming for both single and married adults. Compared with the reference group, single adults without earnings are 13.5 percentage points more likely to claim and married adults without earnings are 32.3 percentage points more likely to start benefits. For single adults, the coefficients on female, non-Hispanic white, years of education, capital income receipt, and pension receipt are all statistically significant and have the same signs as the coefficients in the probit models. Intuitively, the hazard also increases with the number of years beyond age 62. For married adults, the coefficients on female, non-Hispanic white, years of education, capital income receipt, pension receipt and government transfers, are all statistically significant and have the same signs as the coefficients in the probit models.

Conclusions

This paper attempts to deepen our understanding of nonworking older adults and how they support themselves before qualifying for Social Security benefits. Using the Health and Retirement Study, our preliminary results show that nonworking adults ages 51 to 61 are a heterogeneous group. A large share is poor, with low incomes and limited wealth. But a sizeable share is poor, with low incomes and abundant wealth. These individuals are income poor but asset rich. More than for singles, this phenomenon characterizes nonworking married adults. In general, we find that married adults are significantly better off than single adults. The typical married adult with no earners has twice the income and almost eight times the assets of the typical single adult who has no earnings. Additionally, married adults without earnings are about 20 percentage points less likely to be poor than single adults without earnings.

We also find that not working at age 60 significantly increases the probability of claiming benefits before Social Security's full retirement age and early entitlement age, and substantially lowers the average age of first benefit receipt. Although this result holds for both single and married adults, the effect is slightly larger for married adults. This finding suggests that nonworking adults are more likely than their working counterparts to receive actuarially reduced benefits for life. Although the level of assets and non-earned income does not affect the

probability of early claiming, the sources of income seem to matter. Both single and married adults with pension benefits at age 60 are more likely to claim benefits earlier.

This research is the first step to understanding the demographic and economic characteristics of nonworking older adults who are still too young to qualify for Social Security benefits. Future work will look even more closely into the different income sources that nonworkers use to support themselves. We will distinguish between defined benefit (DB) and defined contribution (DC) pensions, as well as the various forms of government transfers (i.e. welfare, food stamps, veterans' benefits). We will further examine the characteristics of nonworking adults to better understand differences between those who retired voluntarily and those who were forced to retire. We will also explore how voluntary and involuntary retirements affect the probability of early claiming. We will also use Social Security's administrative earnings and benefits records to obtain a more accurate measure of the timing of benefit claiming, as well as to construct earnings histories and predicted Social Security benefits to include as controls in our econometric specifications. We will use information from all waves of the HRS and explore possible time trends. Last, but not least, we will explore updating our analyses to include data from the newly released 2010 HRS. We will construct pre- and post-recession comparisons to understand what the impact of the Great Recession has been on older nonworkers.

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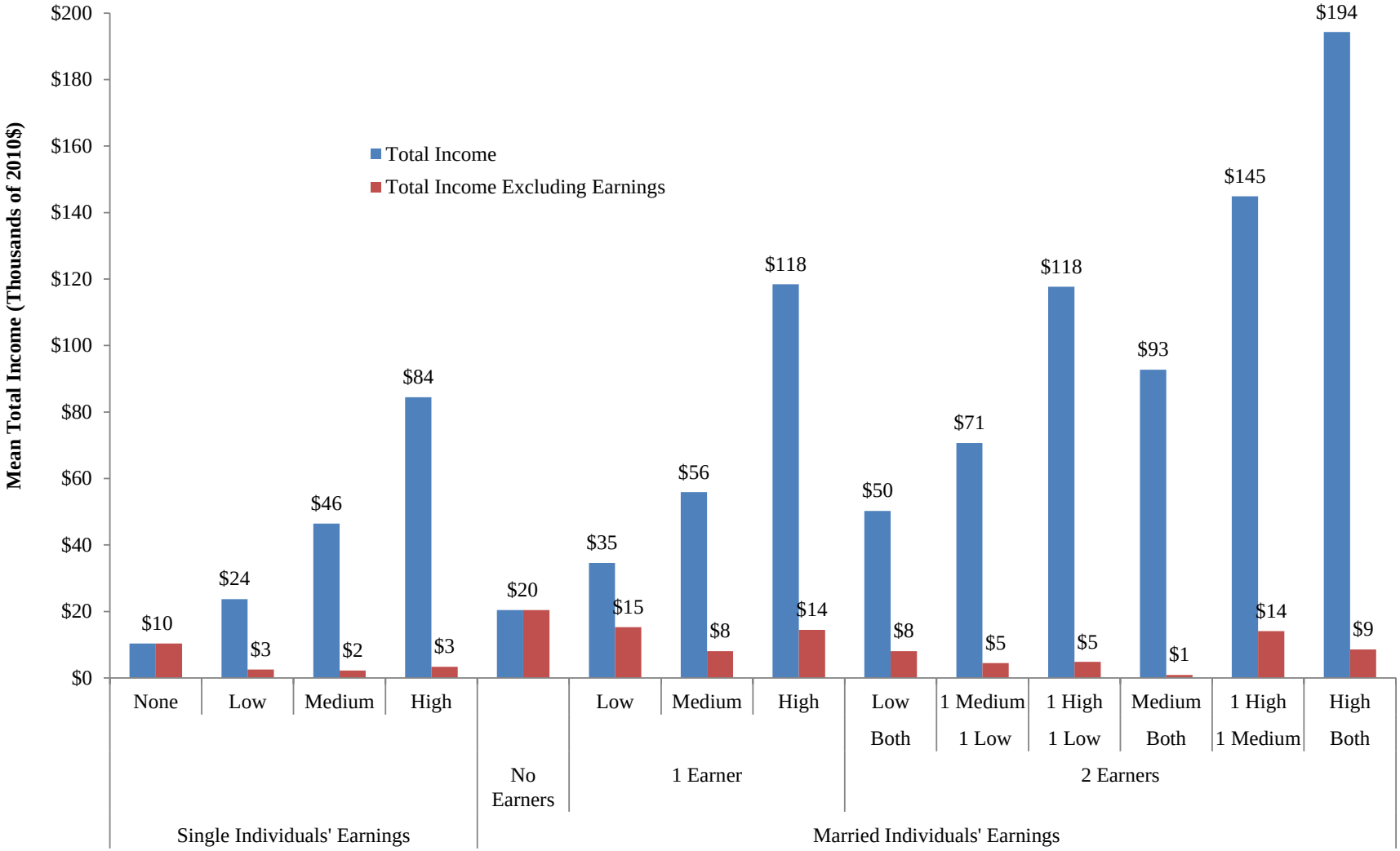
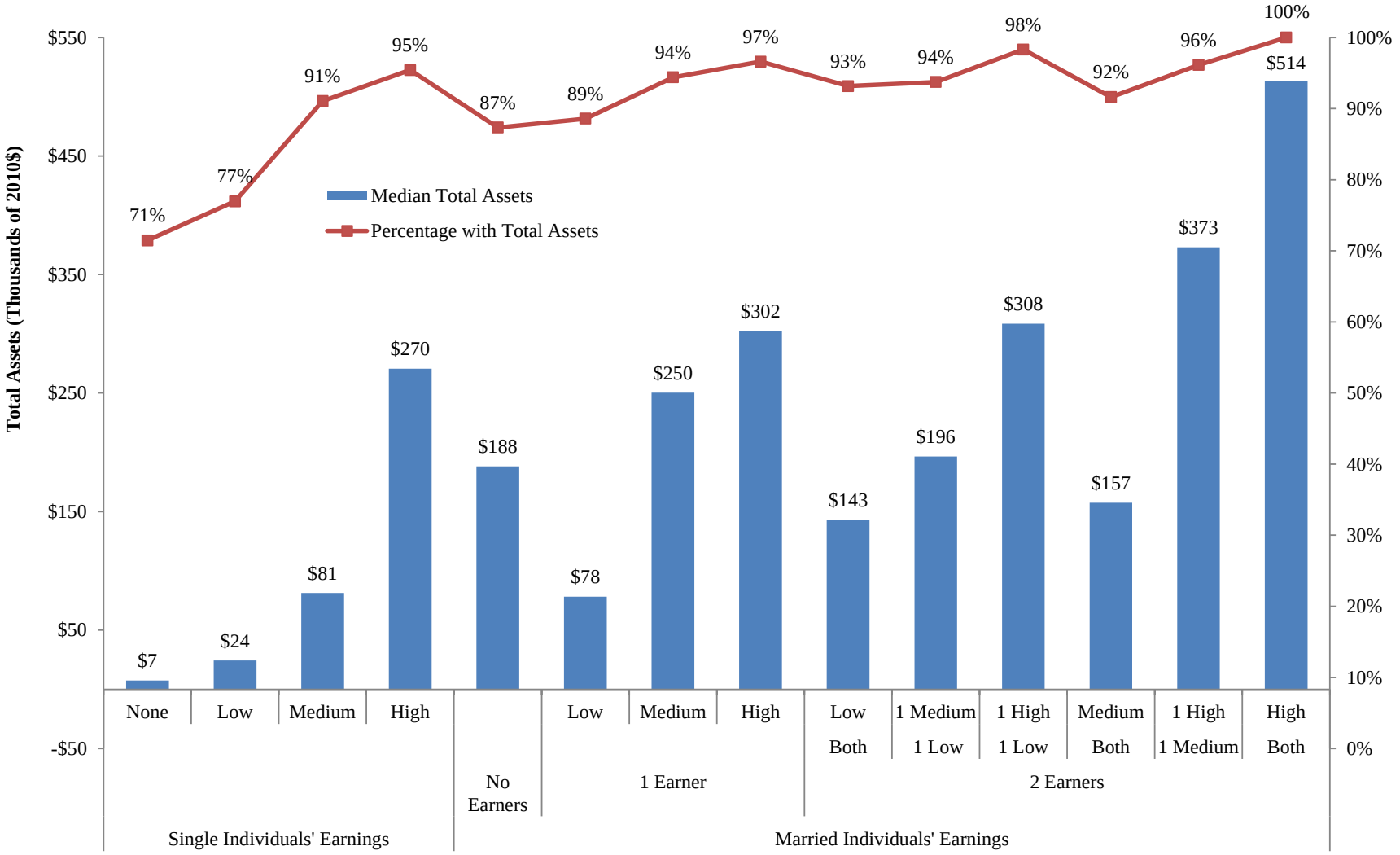
Figure 1. Mean Income Among Adults Ages 51 to 61 in 2008 in the Middle 20% of Income Holders, by Marital Status and Earnings Groups



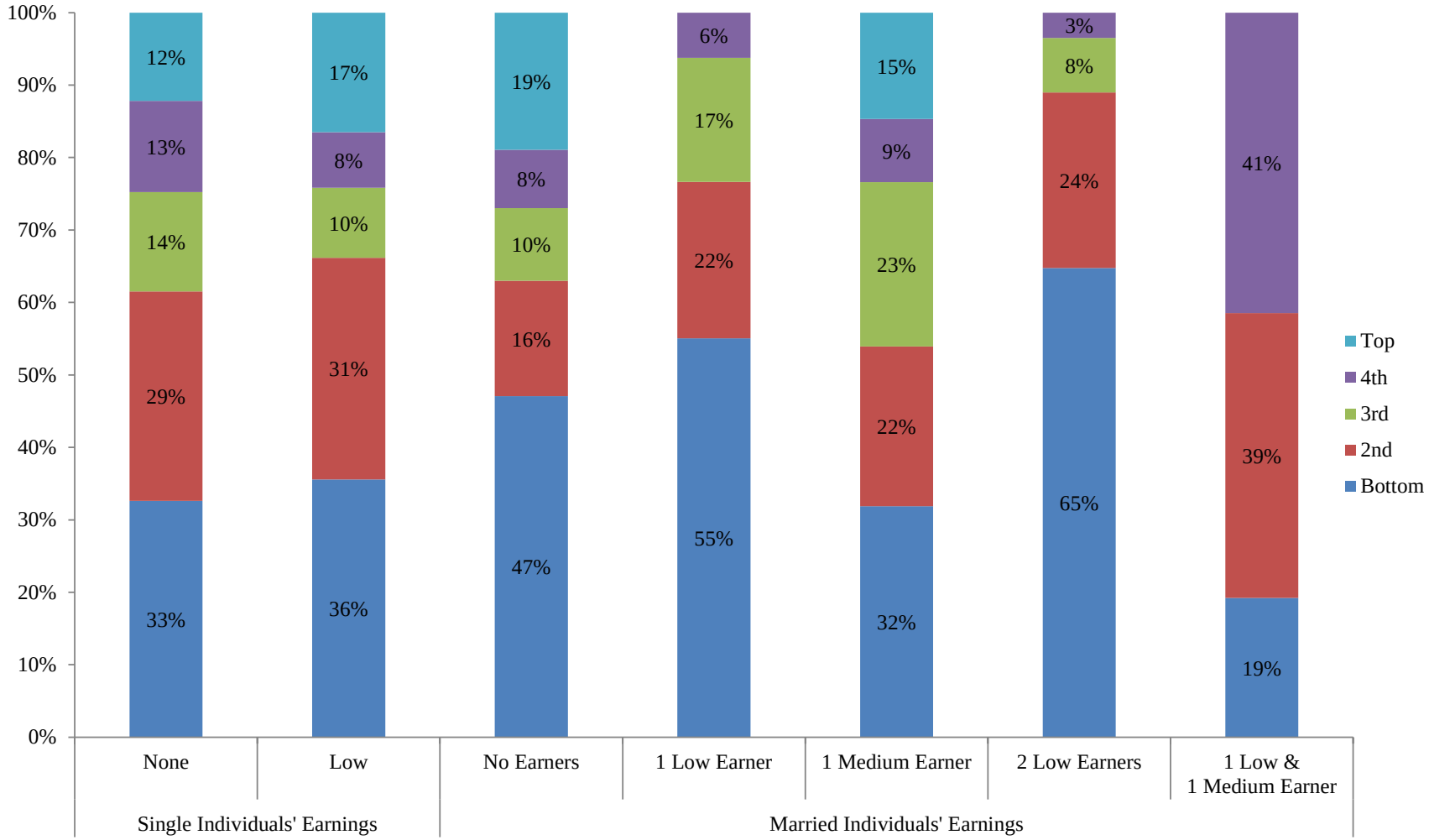
Source: Authors' computations of the Health and Retirement Study and the RAND HRS data file.
Notes: See table 1 for definitions of earnings groups. Income percentiles for the middle 20 percent are computed separately by marital status and earnings group.

Figure 2. Total Assets Among Adults Ages 51 to 61 in 2008, by Marital Status and Earnings Groups



Source: Authors' computations of the Health and Retirement Study and the RAND HRS data file.
Notes: See table 1 for definitions of earnings groups.

Figure 3. Distribution of Total Assets Among Adults Ages 51 to 61 in 2008 in the Bottom Income Quintile



Source: Authors' computations of the Health and Retirement Study and the RAND HRS data file.
Notes: See table 1 for definitions of earnings groups. Income and assets quintiles are computed separately by marital status.

Table 1. Size of the Descriptive Analysis Sample, by Marital Status and Earnings Group

	Single Individuals' Earnings		Married Individuals' Earnings	
	Obs.	Weighted Pct.	Obs.	Weighted Pct.
No Earners	377	36.6%	177	11.0%
1 Earner				
Low	256	25.1	198	10.0
Medium	213	21.2	152	10.1
High	145	17.1	205	13.7
2 Earners				
Both Low			102	6.6
1 Low / 1 Medium			192	11.0
1 Low / 1 High			179	10.4
Both Medium			126	7.0
1 Medium / 1 High			178	12.2
Both High			131	8.0
Total	991	100.0	1,640	100.0

Source: Authors' computations of the Health and Retirement Study and the RAND HRS data file.

Notes: The 'No-Earners' group includes those with annual earnings below the amount needed to earn one quarter of Social Security coverage, which was $1,120 in 2011. Low, medium, and high earnings are based on the distribution of annual earnings greater than or equal to the quarter of coverage amount. Low earnings fall in the bottom third, medium are in the middle third, and high earnings are in the top third of the earnings distribution.

Table 2. Mean Characteristics of Adults Ages 51 to 61 in 2008, by Marital Status and Earnings Group

	Single Individuals' Earnings				Married Individuals' Earnings									
						1 Earner			2 Earners					
	None	Low	Medium	High	No Earners	Low	Medium	High	Both Low	1 Low 1 Medium	1 Low 1 High	Both Medium	1 Medium 1 High	Both High
Respondent Characteristics														
Age	57.8	57.7	57.8	57.3	58.2	57.6	57.9	57.7	58.1	57.5	57.1	57.5	57.3	56.8
Female	60.0	70.5	68.3	57.7	44.9	44.0	47.7	45.6	45.9	47.7	44.0	46.2	45.6	46.1
Non-Hispanic white	57.3	62.5	72.4	85.0	69.7	68.9	80.8	89.0	82.9	87.6	90.2	86.1	92.9	85.8
Non-Hispanic black	26.5	21.4	19.5	9.2	11.0	10.4	7.7	4.7	14.8	6.0	4.4	6.6	3.3	6.1
Hispanic	5.0	3.0	3.0	1.9	4.4	1.2	3.7	2.8	0.0	1.8	2.3	1.7	2.4	4.6
Non-Hispanic other	11.2	13.1	5.0	3.9	15.0	19.5	7.8	3.5	2.2	4.6	3.1	5.6	1.4	3.6
Years of education	12.0	12.7	13.8	15.2	12.5	11.6	13.5	14.3	12.6	13.2	14.3	13.6	14.9	15.0
Health fair/poor	61.3	29.6	16.9	13.2	35.9	46.3	18.2	16.3	22.3	18.0	8.9	12.1	8.0	4.9
Health limits work	71.0	24.0	12.6	5.7	48.0	37.4	29.4	17.9	15.5	7.9	9.1	6.6	8.5	4.1
Years worked	21.6	31.5	34.3	36.2	26.4	28.9	31.3	29.7	35.8	34.4	34.3	36.6	35.3	35.1
Never worked	10.4	1.2	0.0	0.0	10.0	3.6	0.9	2.7	0.0	0.0	0.0	0.0	0.0	0.0
Years since last worked	11.1	0.0	0.0	0.0	10.0	4.7	3.8	5.1	0.0	0.0	0.0	0.0	0.0	0.0
Spouse Characteristics														
Age					57.4	56.9	57.3	57.2	57.6	57.1	56.8	56.6	57.0	56.3
Years of education					12.5	11.5	13.4	14.2	12.5	13.2	14.3	13.6	14.9	15.1
Health fair/poor					36.0	44.0	25.2	16.8	22.1	16.0	10.7	15.1	8.7	3.6
Health limits work					46.5	31.5	34.4	23.4	16.6	9.3	10.1	12.8	6.9	5.2
Years worked					24.9	28.3	30.6	28.5	33.9	34.3	33.2	36.0	34.6	34.2
Never worked					10.6	2.2	0.4	2.5	0.0	0.0	0.0	0.0	0.0	0.0
Years since last worked					9.4	3.5	3.8	5.7	0.0	0.0	0.0	0.0	0.0	0.0

Source: Authors' computations of the Health and Retirement Study and the RAND HRS data file.

Notes: See table 1 notes for definitions of earnings groups.

Table 3. Percent of Adults Ages 51 to 61 in 2008 with Income Sources, by Marital Status and Earnings Group

	Single Individuals' Earnings				Married Individuals' Earnings									
						1 Earner			2 Earners					
	None	Low	Medium	High	No Earners	Low	Medium	High	Both Low	1 Low 1 Medium	1 Low 1 High	Both Medium	1 Medium 1 High	Both High
Total Income	89.9%	100.0%	100.0%	100.0%	97.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Respondent														
Earnings	2.6	100.0	100.0	100.0	3.7	44.9	50.4	51.6	100.0	100.0	100.0	100.0	100.0	100.0
Capital	34.9	40.2	60.9	80.7	58.3	48.7	62.8	81.4	62.2	63.0	74.8	70.0	75.6	88.8
Pensions	14.1	11.8	7.5	4.9	23.9	14.5	8.4	9.2	21.6	11.1	4.0	5.0	7.7	6.4
SSI	17.9	1.9	0.0	0.5	7.1	1.9	2.6	0.8	0.0	1.1	0.0	0.0	0.0	0.0
SSDI	29.2	2.0	0.8	0.0	18.7	19.4	10.8	6.6	3.7	1.1	0.9	0.7	0.0	0.0
Social Security	16.5	4.6	0.8	0.0	13.1	2.4	6.3	0.9	1.6	0.9	1.7	0.0	0.0	0.0
Unemp./Work. Comp	0.7	12.9	6.2	6.0	2.6	3.5	6.2	0.2	3.6	5.1	4.1	3.7	3.5	0.7
Govt. Transfers	30.5	12.8	5.3	4.3	27.2	14.7	4.7	4.6	2.5	5.9	5.1	1.2	3.8	0.0
Other	8.2	7.7	5.5	6.5	12.7	7.9	4.2	10.6	8.4	9.8	1.9	8.7	12.5	9.0
Spouse														
Earnings					3.7	55.5	49.6	49.2	100.0	100.0	100.0	100.0	100.0	100.0
Pensions					25.2	11.7	7.2	6.5	20.9	10.4	4.0	4.6	7.1	4.3
SSI					7.2	1.9	2.1	0.8	0.0	1.0	0.0	0.0	0.0	0.0
SSDI					15.2	12.8	10.6	5.6	1.6	1.0	0.9	0.8	0.0	0.0
Social Security					13.3	3.6	6.0	1.1	3.7	0.9	1.7	0.0	0.0	0.0
Unemp./Work. Comp					2.6	6.0	4.1	0.9	2.0	5.3	4.0	1.5	3.7	0.7
Govt. Transfers					26.2	12.5	4.4	4.6	2.5	5.6	5.1	0.4	3.5	0.0

Source: Authors' computations of the Health and Retirement Study and the RAND HRS data file.

Notes: See table 1 notes for definitions of earnings groups.

Table 4. Mean and Share of Total Income Among Adults Ages 51 to 61 in 2008 in the Middle 20% of Income Holders, by Marital Status and Earnings Group

	Single Individuals' Earnings				Married Individuals' Earnings									
						1 Earner			2 Earners					
	None	Low	Medium	High	No Earners	Low	Medium	High	Both Low	1 Low 1 Medium	1 Low 1 High	Both Medium	1 Medium 1 High	Both High
Total Income	$10.4	$23.7	$46.4	$84.5	$20.4	$34.6	$55.9	$118.4	$50.3	$70.6	$117.7	$92.7	$144.9	$194.3
Total Income	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Respondent														
Earnings	0.1	89.2	95.1	96.0	0.0	26.6	43.4	40.2	43.1	46.2	52.3	49.8	45.2	47.8
Capital	6.9	0.7	3.5	1.8	6.0	6.1	1.8	1.6	0.6	1.3	1.3	0.6	2.7	2.1
Pensions	0.0	1.1	0.4	0.8	0.0	4.9	1.1	5.5	8.0	0.7	0.9	0.2	2.0	2.3
SSI	24.3	0.0	0.0	0.2	4.9	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSDI	40.1	0.0	0.0	0.0	18.4	10.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Social Security	14.0	0.7	0.3	0.0	21.1	2.2	2.1	0.0	0.0	1.8	0.0	0.0	0.0	0.0
Unemp./Work. Comp	1.0	4.8	0.6	0.4	0.2	0.8	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.0
Govt. Transfers	11.9	3.6	0.0	0.3	5.6	1.6	0.0	0.0	0.3	0.0	0.4	0.0	1.1	0.0
Other	1.6	0.0	0.1	0.5	1.2	0.0	0.0	1.5	0.0	0.1	0.0	0.0	0.5	0.0
Spouse														
Earnings					0.0	29.2	42.2	47.6	40.9	47.4	43.6	49.3	45.1	47.8
Pensions					0.0	4.8	0.3	3.6	6.7	0.7	0.9	0.2	2.0	0.0
SSI					4.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSDI					16.6	7.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Social Security					16.3	2.3	2.5	0.0	0.0	1.8	0.0	0.0	0.0	0.0
Unemp./Work. Comp					0.2	2.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.0
Govt. Transfers					5.4	1.6	0.0	0.0	0.3	0.0	0.4	0.0	0.8	0.0

Source: Authors' computations of the Health and Retirement Study and the RAND HRS data file.

Notes: See table 1 notes for definitions of earnings groups. Income percentiles to create the middle 20 percent are computed separately by marital status and earnings group.

Table 5. Percent of Adults Ages 51 to 61 in 2008 by Poverty Status and Quintile of Income or Assets, by Marital Status and Earnings Group

					Married Individuals' Earnings									
									2 Earners					
	Single Individuals' Earnings				No	1 Earner			Both	1 Low	1 Low	Both	1 Medium	Both
	None	Low	Medium	High	Earners	Low	Medium	High	Low	1 Medium	1 High	Medium	1 High	High
Poor	55.4%	15.1%	0.0%	0.0%	38.0%	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Income														
Bottom quintile	46.3	12.3	0.0	0.0	75.0	66.2	22.6	0.0	37.5	5.6	0.0	0.0	0.0	0.0
Second quintile	34.7	28.9	0.0	0.0	10.5	20.0	49.6	13.3	52.4	50.8	1.0	9.5	0.0	0.0
Third quintile	8.9	47.6	23.4	0.0	8.2	9.4	10.9	28.0	9.2	37.5	28.4	68.8	6.8	0.0
Fourth quintile	7.0	10.1	64.4	7.3	3.2	4.4	12.6	22.0	0.8	4.4	49.2	20.1	50.9	20.4
Top quintile	3.1	1.1	12.2	92.7	3.1	0.0	4.2	36.7	0.0	1.7	21.3	1.7	42.3	79.6
Total Assets														
Bottom quintile	31.5	23.6	8.9	4.6	36.5	44.3	18.1	9.0	39.5	21.9	7.8	21.9	8.8	2.5
Second quintile	25.3	25.9	15.6	5.8	12.0	17.5	19.6	19.6	30.4	25.4	15.7	30.4	20.2	13.9
Third quintile	16.6	23.8	29.4	9.2	14.9	17.4	26.0	24.7	14.1	17.7	27.1	24.2	16.3	18.0
Fourth quintile	12.3	14.3	30.7	32.2	11.7	13.8	13.6	23.1	6.7	23.3	32.7	13.4	24.0	29.8
Top quintile	14.3	12.4	15.5	48.2	24.9	7.0	22.7	23.6	9.2	11.7	16.7	10.1	30.6	35.8

Source: Authors' computations of the Health and Retirement Study and the RAND HRS data file.

Notes: See table 1 notes for definitions of earnings groups. Income and assets percentiles are computed separately by marital status.

Table 6. Models of Social Security Claiming for Single Adults

	Probit: Probability of Claiming				
	Before Full Retirement Age (FRA)		At Age 62		OLS: Age of Claiming
Characteristics at Age 60	Coeff.	Marginal Effect	Coeff.	Marginal Effect	Coeff.
Earnings Group					
None	0.420***	0.152***	0.806***	0.305***	-0.841***
	(0.143)	(0.049)	(0.169)	(0.058)	(0.194)
Low	0.413***	0.150***	0.206	0.082	-0.345**
	(0.126)	(0.044)	(0.131)	(0.052)	(0.156)
Medium	0.058	0.022	-0.239*	-0.0949*	0.149
	(0.120)	(0.045)	(0.127)	(0.050)	(0.149)
[Reference: High]					
Respondent Characteristics					
Birth Year	0.069***	0.026***	0.026**	0.010**	-0.038***
	(0.010)	(0.004)	(0.011)	(0.004)	(0.013)
Female	-0.198**	-0.073**	-0.319***	-0.127***	0.374***
	(0.087)	(0.032)	(0.092)	(0.036)	(0.108)
White	0.179**	0.068**	0.023	0.009	-0.134
	(0.078)	(0.030)	(0.088)	(0.035)	(0.103)
Years of Education	-0.032**	-0.012**	-0.041***	-0.017***	0.052***
	(0.014)	(0.005)	(0.016)	(0.006)	(0.019)
Fair or Poor Health	-0.111	-0.042	0.267**	0.106***	-0.374***
	(0.090)	(0.034)	(0.104)	(0.041)	(0.122)
Years Out of Work at Age 60	-0.023	-0.009	-0.050**	-0.02**	0.041
	(0.015)	(0.006)	(0.025)	(0.010)	(0.029)
Female*Years Out of Work	0.022	0.008	0.030	0.012	-0.024
	(0.015)	(0.006)	(0.024)	(0.010)	(0.028)
Capital Income Receipt	0.168**	0.063**	0.131	0.052	-0.112
	(0.082)	(0.031)	(0.092)	(0.037)	(0.107)
Pension Receipt	0.296***	0.107***	0.443***	0.174***	-0.526***
	(0.104)	(0.036)	(0.118)	(0.045)	(0.133)
Unemp./ Work.Comp Receipt	0.052	0.019	-0.127	-0.050	0.052
	(0.145)	(0.054)	(0.157)	(0.062)	(0.186)
Govt. Transf. Receipt	-0.064	-0.024	-0.042	-0.017	0.061
	(0.117)	(0.045)	(0.142)	(0.057)	(0.165)
Other Income Receipt	0.077	0.029	0.025	0.010	-0.073
	(0.122)	(0.045)	(0.135)	(0.054)	(0.154)

(continued)

Table 6. (continued)

	Probit: Probability of Claiming				
	Before Full Retirement		At Age 62		OLS: Age of
Characteristics at Age 60	**Coeff.**	**Marginal**	**Coeff.**	**Marginal**	**Coeff.**
Assets and Income (thousands $)					
Net Worth	-0.00011	-0.00004	0.00006	0.00002	0.000
	-0.00012	-0.00004	-0.00015	-0.00006	(0.000)
Total Income Excl. Earnings	-0.00029	-0.00011	-0.00101	-0.00040	0.000
	-0.00044	-0.00017	-0.00113	-0.00045	(0.000)
Observations	1,374	1,374	1,090	1,090	1,090
Mean of dependent variable	0.622		0.497		63.538
Pseudo/Adjusted R^2	0.059		0.094		0.105

Source: Authors' estimates from the 1992-2008 waves of the Health and Retirement Study (HRS) and the RAND HRS data file.

Notes: See table 1 for definitions of earnings groups. Standard errors are shown in parentheses.
*** $p < 0.01$
** $p < 0.05$
* $p < 0.10$

Table 7. Models of Social Security Claiming for Married Adults

	Probit: Probability of Claiming				
	Before Full Retirement Age (FRA)		At Age 62		OLS: Age of Claiming
Characteristics at Age 60	Coeff.	Marginal Effect	Coeff.	Marginal Effect	Coeff.
Earnings Group					
No Earners	0.820***	0.215***	0.962***	0.314***	-1.039***
	(0.187)	(0.035)	(0.200)	(0.048)	(0.205)
1 Earner					
Low	0.682***	0.189***	0.724***	0.253***	-0.867***
	(0.178)	(0.039)	(0.186)	(0.055)	(0.196)
Medium	0.457***	0.136***	0.475***	0.174***	-0.569***
	(0.171)	(0.044)	(0.181)	(0.061)	(0.192)
High	0.339**	0.105**	0.393**	0.147**	-0.452**
	(0.160)	(0.045)	(0.172)	(0.060)	(0.183)
2 Earners					
Both Low	0.785***	0.204***	0.741***	0.254***	-0.874***
	(0.188)	(0.034)	(0.191)	(0.053)	(0.201)
1 Low, 1 Medium	0.511***	0.149***	0.439**	0.162***	-0.596***
	(0.167)	(0.041)	(0.176)	(0.060)	(0.187)
1 Low, 1 High	0.380**	0.115***	0.334*	0.125**	-0.279
	(0.167)	(0.044)	(0.177)	(0.063)	(0.189)
Both Medium	0.410**	0.121***	0.446**	0.163**	-0.424**
	(0.181)	(0.046)	(0.191)	(0.063)	(0.204)
1 Medium, 1 High	0.216	0.068	0.040	0.015	0.022
	(0.166)	(0.049)	(0.178)	(0.069)	(0.189)
[Reference: Both High]	—	—	—	—	—
Respondent Characteristics					
Birth Year	0.069***	0.023***	0.009	0.003	-0.019**
	(0.009)	(0.003)	(0.008)	(0.003)	(0.008)
Female	0.232***	0.075***	0.182**	0.070**	-0.322***
	(0.081)	(0.025)	(0.079)	(0.030)	(0.083)
White	0.225***	0.078***	0.115	0.045	-0.281***
	(0.077)	(0.028)	(0.080)	(0.032)	(0.085)
Years of Education	-0.049***	-0.017***	-0.042***	-0.016***	0.035**
	(0.013)	(0.004)	(0.013)	(0.005)	(0.014)
Fair or Poor Health	-0.107	-0.037	0.095	0.037	-0.168*
	(0.084)	(0.029)	(0.087)	(0.033)	(0.092)
Years Out of Work at Age 60	-0.023	-0.008	0.039**	0.015**	-0.028
	(0.016)	(0.005)	(0.020)	(0.008)	(0.020)
Female*Years Out of Work	0.021	0.007	-0.037*	-0.014*	0.031
	(0.017)	(0.006)	(0.020)	(0.008)	(0.020)
Capital Income Receipt	0.091	0.031	0.060	0.023	-0.143*
	(0.069)	(0.024)	(0.069)	(0.027)	(0.073)

(continued)

Table 7. (continued)

	Probit: Probability of Claiming				
	Before Full Retirement Age (FRA)		At Age 62		OLS: Age of Claiming
Characteristics at Age 60	**Coeff.**	**Marginal Effect**	**Coeff.**	**Marginal Effect**	**Coeff.**
Pension Receipt	0.332***	0.104***	0.456***	0.170***	-0.417***
	(0.081)	(0.024)	(0.081)	(0.029)	(0.084)
Unemp./ Work.Comp Receipt	0.216*	0.068*	0.153	0.059	-0.256**
	(0.125)	(0.037)	(0.117)	(0.044)	(0.124)
Govt. Transf. Receipt	0.338***	0.102***	0.131	0.051	-0.206
	(0.126)	(0.034)	(0.124)	(0.047)	(0.130)
Other Income Receipt	0.041	0.014	0.098	0.038	0.016
	(0.106)	(0.035)	(0.109)	(0.042)	(0.113)
Spouse Characteristics					
Couple Age Difference	-0.021*	-0.007*	-0.007	-0.003	0.024*
	(0.011)	(0.004)	(0.012)	(0.005)	(0.012)
Years of Education	0.017	0.006	0.021	0.008	-0.009
	(0.014)	(0.005)	(0.014)	(0.005)	(0.015)
Fair or Poor Health	-0.099	-0.034	-0.137	-0.054	0.081
	(0.084)	(0.029)	(0.083)	(0.033)	(0.089)
Pension Receipt	0.134	0.044	0.243**	0.093**	-0.138
	(0.101)	(0.032)	(0.098)	(0.036)	(0.100)
Unemp./ Work.Comp Receipt	0.087	0.029	0.142	0.055	-0.126
	(0.141)	(0.045)	(0.139)	(0.052)	(0.148)
Govt. Transf. Receipt	-0.012	-0.004	0.162	0.062	-0.092
	(0.17)	(0.06)	(0.17)	(0.06)	(0.18)
SSDI Receipt	0.362**	0.108**	0.141	0.054	-0.301*
	(0.17)	(0.04)	(0.16)	(0.06)	(0.17)
Assets and Income (thousands $)					
Net Worth	0.00002	0.00001	0.00009	0.00004	-0.00007
	-0.00005	-0.00002	-0.00006	-0.00002	-0.00006
Total Income Excl. Earnings	0.00000	0.00000	-0.001*	-0.001*	0.00089
	-0.00078	-0.00026	-0.00076	-0.00030	-0.00078
Observations	2,327	2,327	2,106	2,106	2,106
Mean of dependent variable	0.704		0.574		63.271
Pseudo/Adjusted R^2	0.081		0.079		0.107

Source: Authors' estimates from the 1992-2008 waves of the Health and Retirement Study (HRS) and the RAND HRS data file.

Notes: See table 1 for definitions of earnings groups. Standard errors are shown in parentheses.
*** $p < 0.01$
** $p < 0.05$
* $p < 0.10$

Table 8. Duration Models: Hazard of First Claiming Social Security Benefits, Single and Married

	Single Individuals		Married Individuals	
Characteristics at Age 60	**Coeff.**	**Marginal Effect**	**Coeff.**	**Marginal Effect**
Earnings Group				
No Earners	0.563***	0.135***	1.359***	0.323***
	(0.161)	(0.039)	(0.197)	(0.041)
1 Earner				
Low	0.360***	0.084***	1.070***	0.261***
	(0.127)	(0.030)	(0.182)	(0.042)
Medium	0.101	0.023	0.549***	0.136***
	(0.120)	(0.028)	(0.171)	(0.043)
[Reference for Single: High]	—	—	0.408**	0.100**
			(0.159)	(0.039)
2 Earners				
Both Low			1.018***	0.249***
			(0.188)	(0.043)
1 Low, 1 Medium			0.583***	0.144***
			(0.166)	(0.041)
1 Low, 1 High			0.358**	0.088**
			(0.164)	(0.041)
Both Medium			0.451**	0.111**
			(0.179)	(0.045)
1 Medium, 1 High			0.162	0.040
			(0.163)	(0.040)
[Reference for Married: Both High]			—	—
Respondent Characteristics				
Birth Year	-0.037***	-0.009***	-0.047***	-0.011***
	(0.010)	(0.002)	(0.008)	(0.002)
Years Beyond Age 62	0.080***	0.019***	0.032	0.008
	(0.026)	(0.006)	(0.022)	(0.005)
Female	-0.369***	-0.087***	0.187**	0.046**
	(0.091)	(0.022)	(0.080)	(0.020)
White	0.226***	0.052***	0.471***	0.111***
	(0.085)	(0.019)	(0.080)	(0.018)
Years of Education	-0.025*	-0.006*	-0.057***	-0.014***
	(0.015)	(0.003)	(0.013)	(0.003)
Fair or Poor Health	0.129	0.030	0.063	0.015
	(0.105)	(0.025)	(0.091)	(0.022)
Years Out of Work at Age 60	-0.030*	-0.007*	-0.045***	-0.011***
	(0.017)	(0.004)	(0.017)	(0.004)
Female*Years Out of Work	0.014	0.003	0.047***	0.011***
	(0.017)	(0.004)	(0.018)	(0.004)

(continued)

Table 8. (continued)

	Single Individuals		Married Individuals	
Characteristics at Age 60	**Coeff.**	**Marginal Effect**	**Coeff.**	**Marginal Effect**
Capital Income Receipt	0.227**	0.053**	0.194***	0.047***
	(0.088)	(0.020)	(0.072)	(0.017)
Pension Receipt	0.425***	0.101***	0.347***	0.085***
	(0.117)	(0.029)	(0.084)	(0.021)
Unemp./ Work.Comp Receipt	-0.004	-0.001	0.247*	0.061*
	(0.158)	(0.036)	(0.127)	(0.032)
Govt. Transf. Receipt	-0.004	-0.001	0.367***	0.091***
	(0.138)	(0.032)	(0.134)	(0.034)
Other Income Receipt	0.169	0.040	0.023	0.005
	(0.132)	(0.032)	(0.108)	(0.026)
Spouse Characteristics				
Couple Age Difference			-0.018	-0.004
			(0.012)	(0.003)
Years of Education			0.014	0.003
			(0.014)	(0.003)
Fair or Poor Health			-0.138	-0.033
			(0.087)	(0.021)
Pension Receipt			0.067	0.016
			(0.103)	(0.025)
Unemp./ Work.Comp Receipt			0.041	0.010
			(0.148)	(0.036)
Govt. Transf. Receipt			0.118	0.029
			(0.187)	(0.046)
SSDI Receipt			0.132	0.032
			(0.170)	(0.042)
Assets and Income (thousands $)				
Net Worth	-0.00014	-0.00003	-0.00005	-0.00001
	-0.00010	-0.00002	-0.00004	-0.00001
Total Income Excl. Earnings	-0.00004	-0.00001	0.00048	0.00012
	-0.00013	-0.00003	-0.00072	-0.00018
Spells	3,094	3,094	5,195	5,195
Pseudo R^2	0.025		0.045	

Source: Authors' estimates from the 1992-2008 waves of the Health and Retirement Study (HRS) and the RAND HRS data file.

Notes: See table 1 for definitions of earnings groups. Standard errors are shown in parentheses.
*** $p < 0.01$
** $p < 0.05$
* $p < 0.10$