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PAPER

Transitions to Self-Employment at Older Ages

The Role of Wealth, Health, Health Insurance, and Other Factors

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LABOR AND POPULATION

TRANSITIONS TO SELF-EMPLOYMENT AT OLDER AGES:

THE ROLE OF WEALTH, HEALTH, HEALTH INSURANCE

AND OTHER FACTORS

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ABSTRACT

Relatively little research has been devoted to studying self-employment among older workers although they make up a disproportionate share of the self-employed workforce. This study uses 5 waves of panel data from the Health and Retirement Study to investigate the determinants of labor force transitions to self-employment at older ages. We estimate a multinomial logit model of transitions from wage and salary employment to self-employment, retirement or not working. Results are compared with those found in previous studies. New findings on the impact of health on transitions to self-employment are highlighted.

INTRODUCTION

In 2002, 14.4 million U.S. workers, or 10.5 percent of the workforce, were self-employed in incorporated or unincorporated businesses.[1] Given that rates of self-employment increase with age, a disproportionate share of the self-employed are middle-aged and older workers. Slightly more than half (54 percent) of the self-employed (in unincorporated businesses only) in 2002 were ages 45 and above although this age group represented just over one third (38 percent) of the workforce in total.[2] Some of these older workers have been self-employed for much or all of their working careers while others have made the transition to self-employment later in their careers, often as part of the transition to retirement.

Figure 1 shows the changes in self-employment rates by age for all men and women workers and for full-time men and women workers based on longitudinal data from the Health and Retirement Study (HRS). The figure reveals there is little change in self-employment rates for individuals age 51 to 59 or 60. By age 60 or 61, the rate of self-employment begins to increase, peaking in most cases at age 66. For example, for full-time men, the self-employment rate is 20 percent at age 60 and it increases monotonically until age 66 where it peaks at 39 percent. This pattern may reflect the higher rates of retirement out of wage and salary work compared to self-employment as well as transitions to self-employment at older ages. Indeed, tabulations from the HRS in 1998 reveal that nearly one third of workers age 51 and above who are self-employed made the transition to self-employment at or after age 50. Transitions to self-employment among older workers have implications for current levels of well-being (e.g.,

[1] Based on published and unpublished household data from the Current Population Survey (CPS) reported by the Bureau of Labor Statistics (BLS) in Table 12 at http://www.bls.gov/cps/home.htm#empstat, and in an unpublished tabulation provided by BLS staff.

[2] See Table 12 at http://www.bls.gov/cps/home.htm#empstat

earnings) among those nearing retirement, and may also have implications for the accumulation of retirement benefits and the accumulation or decumulation of other financial assets.

Despite the importance of self-employment in the labor market behavior of older workers, it is a relatively understudied area. The goal of this paper is to fill an important gap in our knowledge base about the labor force transitions of older workers generally and in particular, workers' transitions to self-employment in middle and late life. As we detail in the next section, there is a small but growing number of recent analyses of self-employment behavior among all workers, but far less attention has been paid to self-employment among workers in middle age and beyond. Longitudinal data from the 1992 to 2000 waves of the HRS, described in the third section, are used to examine patterns in labor force transitions after age 51. Using these data, in the fourth section, we compare transitions between employment classes and into retirement for self-employed workers and their wage and salary counterparts. We employ a decomposition (Fuchs, 1982) to reveal the source of increases in self-employment with age after which we describe our methods and results. We use detailed data on demographic characteristics, job characteristics, income and wealth from various sources, health status, access to health insurance coverage, retirement expectations and a spouse's characteristics to identify the determinants of who becomes self-employed later in life, who leaves the labor force, and who continues to work in the wage and salary sector. The final section concludes the paper.

PRIOR RESEARCH ON SELF-EMPLOYMENT

Prior research on the self-employed has examined the factors that lead individuals to choose self-employment over wage and salary work. In some cases, studies have examined the determinants of transitions to self-employment. Much of the literature focuses on the self-

employed workforce as a whole; only a few studies focus specifically on older self-employed workers. In this section we describe previous studies on the determinants of self-employment more generally and then among older workers.

Determinants of Self-Employment

One strand of the self-employment literature examines the factors that drive employment in the sector and transitions in and out of self-employment. Among the determinants of self-employment, studies find that sex, age, education, and marital status are consistently strong determinants with higher propensities for self-employment among men, older workers, those who are more educated, and those who are married (Fairlee and Meyer, 1996; Blanchflower, 2000; Lombard, 2001). Those with a disability also are more likely to be self-employed (Fairlee and Meyer, 1996).

The choice of self-employment is sometimes viewed as driven by the positive benefits of being an entrepreneur, while at other times, the argument is made that people are pushed into self-employment by poor job prospects in the wage and salary sector (Blanchflower and Oswald, 1998; Manser and Picot, 1999). In support of the first view, BLS tabulations from special CPS supplements in the 1990s indicate that workers tend to list positive reasons for self-employment rather than negative ones (Manser and Picot, 1999). In regression-based estimates, Fairlee and Meyer (1996) find that self-employment rates among detailed race and ethnic groups are positively related to the potential rates of return in the sector, suggesting that the more advantaged groups are pulled into self-employment. Lombard (2001) reports a similar finding for women. Job autonomy, hours flexibility and the ability to work a nonstandard work week are also factors cited as favoring the decision to be self-employed, especially for women (Devine, 2001; Hundley, 2001; Lombard, 2001) and workers nearing retirement (Fuchs, 1982).

Evidence in favor of the "push" hypothesis includes an analysis of transitions from paid employment to self-employment in Canada which shows that workers are more likely to become self-employed the longer is the spell of joblessness, when unemployment benefits are not collected between jobs, and when the reason for job loss is an involuntarily separation (Moore and Mueller, 2002). Evans and Leighton (1989) find that poorer wage workers—the unemployed, lower-wage workers, and those with a history of job instability—are more likely to become self-employed, a result consistent with the notion that "misfits" are pushed into self-employment. Self-employment rates have also been found to rise with increases in local or national unemployment rates, at least for some groups such as women (Simpson and Sproule, 1998; Schuetze, 2000), but this finding is not universal (see, for example, Blanchflower, 2000 and the studies cited therein). Difficulty with the English language is associated with lower rates of self-employment among men in their analysis of 1990 Census data, a finding replicated by Lofstrom (2002) in his analysis of 1980 and 1990 Census data. Fairlee and Meyer (1996), however, argue that the disadvantage theory cannot explain the large differences in self-employment rates among detailed race and ethnic groups.

Other individual factors that may affect assessments of returns to self-employment include an individual's taste for (or aversion to) risk, as individuals who consider self-employment likely face more uncertainty about their future earnings compared with wage sector employment (van Praag and Cramer, 2001). After accounting for ability and risk aversion, the self-employment literature also suggests that access to capital, through inheritance or gift for example, is another factor that affects the decision to become self-employed, although prior work has tended to focus on self-employment behavior for younger workers (Evans and Jovanovic, 1989; Evans and Leighton, 1989; Holtz-Eakin, Joulfaian, and Rosen, 1994; Dunn and Holtz-

Eakin, 1995, 2000; Blanchflower and Oswald, 1998). For example, studies find that the probability of self-employment increases with an inheritance or gift, especially at younger ages for a British sample (Blanchflower and Oswald, 1998), or with the amount of assets more generally for a U.S. sample (Holtz-Eakin, Joulfaian, and Rosen, 1994).

Health insurance access through self or spouse has been shown to be another factor affecting self-employment rates (Wellington, 2001; Lombard, 2001). This result is not consistent with an earlier study by Holtz-Eakin, Penrod and Rosen (1996) that found no impact of health insurance access from the current employer on transitions from wage employment to self-employment in the Survey of Income and Program Participation (SIPP) and the Panel Study of Income Dynamics (PSID).

In addition to these factors, studies have attributed movements into self-employment and changes in self-employment rates over time to other factors such as changes in technology and industrial mix, tax rates, and the generosity of Social Security benefits (Blau, 1987; Bruce, 2000, 2002; Gentry and Hubbard, 2000; Schuetze, 2000). These factors affect the opportunities for self-employment and the associated returns.

Self-Employment among Older Workers

Although the phenomenon of self-employment in general has received academic attention, relatively little research has been devoted to studying self-employment among those in middle and late life. As noted above, self-employment rates are higher among mature and older workers compared with younger workers, even for those working past age 65 (Haider and Loughran, 2001; Duchesne, 2002). As documented by Fuchs (1982) using data from the Retirement History Study (RHS), the increased prevalence of self-employment among men at older ages may be due to shifts from wage-and-salary work into self-employment, or differential

propensity to retire among wage and salary workers compared with the self-employed, or both. Indeed, his analysis shows that both phenomena were at work during the period covered by his data (the late 1960s and early 1970s). For example, about 4 percent of wage and salary workers shifted to self-employment over a two-year interval, a rate that varied little between ages 58 and 65. At the same time, the rate of continuation within the self-employment sector was higher than for the wage-and-salary sector, a gap that increased with age as wage and salary workers moved to retirement at higher rates that their self-employed counterparts.

In the retirement literature, it has certainly been recognized that labor market transitions at the end of the work career do not always follow a simple pattern of full-time career employment to no employment and retirement (Quinn, 1980; Lazear, 1986; Ruhm, 1990, 1992; Peracchi and Welch, 1994; Doeringer, 1995). Instead, many middle-aged and older workers move from a full-time career job through other transitions before finally leaving the labor force. Such transitions include reduction in hours worked and movements from full-time to part-time work, as well as transitions from wage and salary employment and self-employment. Nevertheless, the self-employment transition itself among middle-aged and older workers has not been a major focus of study.

Two exceptions are studies by Quinn (1980) and Fuchs (1982) using data from the RHS. Quinn (1980) notes that self-employment at older ages may be a form of partial retirement, with self-employment offering greater flexibility in hours and wages to accommodate tastes for leisure and the Social Security earnings test. Fuchs (1982) finds that men who transition to self-employment are more likely to have had prior self-employment experience and to have job characteristics—hours of work (both low and high) and occupations such as managers, professionals, and salesmen with discretion in their jobs and pay tied to performance—that

mirror those for the self-employed. Self-employment transitions are also less likely among men expecting a pension in the current job.

While informative, these two studies rely upon the RHS, which provides a perspective on the cohort of workers reaching retirement in the late 1960s and 1970s. These studies were also primarily interested in labor force transitions for men. Two more recent studies rely on the HRS to examine self-employment behavior among more recent cohorts. Karoly and Rogowski (1997) examine transitions between wage and salary employment and self-employment using the first two waves of the HRS (i.e. transitions that occur over a two-year period). Their primary interest is in the role of access to post-retirement health insurance in facilitating the transition to part-time or self-employment status, as well as retirement. They find some evidence that health insurance status can affect the transition to self-employment, specifically that having no coverage is associated with moves to self-employment over retirement.

Bruce, Holtz-Eakin, and Quinn (2000) are also interested in the role that health insurance plays in determining transitions to self-employment. Their analysis, based on transitions between the first and third HRS waves (4 years apart), finds little evidence that having more portable health insurance affects transitions to self-employment from wage and salary employment. The Karoly and Rogowski (1997) and Bruce, Holtz-Eakin, and Quinn (2000) studies differ in their specification for the health insurance variables so it is difficult to reconcile the divergent findings. Bruce, Holtz-Eakin, and Quinn (2000) do find, consistent with literature on self-employment transitions for younger workers, that transitions to self-employment among older workers are positively associated with the level of wealth. This suggests that liquidity constraints affect self-employment transitions for older workers as well as younger workers.

THE HEALTH AND RETIREMENT STUDY DATA

To examine the patterns and determinants of transitions to self-employment among older workers, we rely upon longitudinal data from the HRS from 1992 to 2000. The HRS, when appropriately weighted, is a nationally representative, longitudinal survey of middle-aged and older Americans. The HRS is a biennial survey that began in 1992 with a sample of the non-institutional population born between January 1, 1931 and December 31, 1941 and their spouses or partners. Data from five survey waves, through 2000, are used for our analysis.[3]

Individuals are included in the sample if they are observed for at least two consecutive waves, and all pairs of consecutive waves are included. Thus, for individuals who die between waves, they are not included for the last wave they are observed. Likewise, if an individual misses a wave due to attrition, we do not include the wave prior to the wave when they drop out. Some individuals miss a wave and then reappear so any future pairs of consecutive waves for such temporary dropouts will be analyzed. The resulting sample consists of 34,920 person years for respondents age 51 to 69.

In terms of employment outcomes, workers are asked whether they are currently self-employed in their main job, how long they have been self-employed (i.e., tenure on the current job) and the employment status of a previous job lasting 5 or more years. Retired workers are asked about the employment status of previous jobs. HRS respondents are also asked about jobs other than their main job and if the second job is in self-employment.

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[3] Several other cohorts have been added to the HRS over time. In 1998, interviews that began in 1993 with the cohort born prior to January 1, 1924, known as the "AHEAD" (Assets and Health Dynamics of the Oldest Old) sample, were merged with the HRS. Two additional cohorts were added in 1998: the cohort born between January 1, 1924 and December 31, 1930 (known as the "Children of the Depression Era" or "CODA" sample), and the cohort born between January 1, 1942 and December 31, 1947 (known as the "War Babies" sample). Since we rely upon restricted data on Social Security earnings histories and pension plan characteristics, which are currently only available for the original HRS cohort, we do not incorporate the other HRS cohorts into our analysis.

The HRS is extremely rich in terms of a number of other characteristics available for the study population. Moreover, we link data from the main survey to respondent's Social Security earnings records to calculate a present, discounted value of Social Security wealth and we link restricted data from employers to obtain a present, discounted value of pension wealth. In the analysis, we include information about demographic characteristics, job characteristics, income and income sources, wealth from various sources (e.g., pensions, Social Security, housing, and other financial assets), health status, access to health insurance coverage, retirement expectations, and retiree health benefits, and a similar array of characteristics for the respondent's spouse. This information allows for a detailed analysis of the characteristics related to the decision to transition to self-employment later in life.

DESCRIPTIVE ANALYSIS OF EMPLOYMENT TRANSITIONS

We begin by analyzing the pattern of transitions between waves. For workers in a given state at time *t* (e.g., wage and salary worker), we determine the fraction remaining in the same state versus those that transition to another state (e.g. self-employed, retired, unemployed or disabled, or not in the labor force). We document the extent to which the growth in self-employment at older ages is due to shifts into self-employment from wage and salary work, versus differential retirement from wage-and-salary work compared to self-employment. These transitions are examined separately for men and women and for three age subgroups of men and women.

Table 1 shows the labor market transitions for HRS men and women age 51 to 67 based on their initial status at time *t* —wage and salary worker, self-employed worker, or not working—into one of five states at time *t+2*: wage and salary worker, self-employed worker,

retired, unemployed or disabled, or not in the labor force. The row totals sum to 100 percent and show the fraction of those in a given status at time *t+2* for a given status at time *t*.

For both men and women, the fraction that remain in wage and salary employment two years later is higher than the fraction that remain in self-employment two years later, 73 percent versus 65 percent for men, and 72 percent versus 57 percent for women. Regardless of the initial class of employment, the fraction that remains in the same class declines steadily with age so that by ages 62 to 69, roughly 1 in 2 workers remain in the same status while the others transition to some other status.

The transition rates into self-employment decline with age. In contrast, transitions into retirement from wage and salary employment, self-employment or non-work rise rapidly with age. With one exception, for men and women at every age group, the retirement rate for the self-employed is higher by a few percentage points than the rate for wage workers. Nevertheless, because the share of wage workers is so much higher, the absolute reduction in the labor force at each age due to retirement from the wage sector is higher than it is for the self-employed sector. Even though the fraction switching sectors is higher among the self-employed, the net effect of workers changing sectors is almost zero.

Table 2 repeats these transitions for those who are full-time workers at time *t* (hence the third status of not working at time *t* is excluded from the table), which is the analysis sample we use in our regression analysis. In this table, we have combined those who are unemployed, disabled, or not in the labor force at time *t+2* into a residual "not working" category. In contrast with the patterns observed for all workers, among full-time workers, men who are self-employed are less likely to retire, a difference that increases with age. For example, at ages 62 to 67, self-employed men are 13 percentage points less likely to transition to retirement than their wage and

salary counterparts (25 versus 38 percent), a gap that equaled 1 percentage point at ages 51 to 55 (6 versus 7 percent). A similar pattern by age exists for women with the exception of those age 51 to 55. Moreover, the proportion of full-time men and women that remain in the same class is higher than it was for all men and women and is now nearly identical for wage and salary and self-employed workers (78 percent for men in both sectors, and 78 versus 74 percent for women). Transitions between wage and salary and self-employment work in total and by age are very similar for full-time workers (Table 2) as what was observed for all workers (Table 1).

Following Fuchs (1982), we decompose the relative change in importance of self-employment from time *t* to time *t+2*, labeled C, for the sample of full-time workers, which is our main analysis sample. C is defined as the ratio of the number of self-employed in year *t+2* to the total number of workers in time *t+2* minus this ratio in year *t* and is reported in the first and third columns in Table 3 for men and women, respectively. For example, for men, the relative importance of self-employment increases from 0.6 percentage points in going from *t* to *t+2* at ages 51 to 55 to 4.5 percentage points at ages 62 to 67. We then calculate the percent of C attributable to net switching of class of worker, P. P is equal to the number of wage workers who moved to self-employment between *t* and *t+2* minus the number of self-employed who moved into wage work over the same period, divided by the number of self-employed in year *t+2* minus the expected number of self-employed *t+2* if the relative importance had remained constant (Fuchs, 1982). This number is reported in the second and fourth columns in Table 3. For male workers age 51 to 55, most of the increase in the relative importance of self-employment is due to net switching and all of it is due to net switching for female workers at the same ages. For male workers age 62 to 67, most is due to differences in continuity of work, although this is not true for full-time female workers. Fuchs (1982), using a sample of white,

urban males, also finds that among workers over the age of 60, differential work patterns is more important than sector shifting after age 61 but he finds that shifts in class of employment are important for workers age 58 and 59.

Movements into self-employment may be used as a means to reduce hours; a step in the transition to full retirement. Table 4 examines employment transitions for full-time workers (wage and salary or self-employed) stratified by whether they work full time or part time at time *t+2*. Because there are few observations in some of the cells, we do not report results by age categories. The first row shows transitions for full-time men in the wage sector at time *t*. Seventy-six percent continue to work full time in the same sector in the following wave and only 2 percent shift to part-time work in the same sector. In contrast, among self-employed workers, 71 percent continue to work full time in self-employment while 7 percent move to part-time self-employed work. Women show similar patterns although their rates of transition to part-time work from either sector are higher than for men. For both men and women then, the transitions to part-time work are much greater for self-employed workers than for workers in the wage sector and fewer workers report being retired. This suggests that there may be greater flexibility among the self-employed to reduce hours of work rather than moving to complete retirement.

REGRESSION ANALYSIS OF TRANSITIONS TO SELF-EMPLOYMENT

Our main focus is on the multivariate analysis of the factors associated with transitions from full-time wage and salary employment to self-employment, retirement, or not working. Given the form of the data and the nature of the outcomes, we estimate a discrete-time hazard model of transitions using a multinomial logit procedure. In particular, we assume that the

"propensity" for person *i* to transition from a given state, *k*, at time *t* to a given state, *j*, at time *t+2* (one survey wave later or approximately two years later) is given by the index function:

$$Y^*_{ij} = \beta_{0j} + \beta_{1j} D_i + \beta_{2j} W_i + \beta_{3j} H_i + \beta_{4j} I_i + \beta_{5j} J_i + \beta_{6j} E_i + \beta_{7j} S_i + u_{ij} \quad (1)$$

where D = a vector of demographic characteristics, W = a vector of retirement and other financial wealth measures, H = a vector of health status measures, I = a vector of measures of access to employer-provided insurance (e.g., as a retiree benefit or through a spouse's employer), J = a vector of current job characteristics, E = a vector of retirement expectations measures, S = a vector of spousal characteristics, and u_{ij} is the model error term. All determinants of Y^*_{ij} are measured as of time *t*.

In a choice theoretic framework, Y^*_{ij} may be thought of as the indirect utility for person *i* associated with outcome *j* (McFadden, 1984). Given *M* mutually exclusive outcomes, we observe:

$Y_{ij} = 1$ if $Y^*_{ij} = \max (Y^*_{i1}, Y^*_{i2}, \ldots, Y^*_{iM})$

$Y_{ij} = 0$ otherwise

The errors in this model are assumed to follow an extreme value distribution.

The coefficients in the multinomial logit model have a similar interpretation as the coefficients in a logit model estimated for a dichotomous outcome variable. In particular, treating one of the *M* outcomes, *m*, as the reference group (required in order for the predicted probabilities to sum to one), we have:

$$\log \frac{p_j}{p_m} = \beta_{0j} + \beta_{1j} D_i + \beta_{2j} W_i + \beta_{3j} H_i + \beta_{4j} I_i + \beta_{5j} J_i + \beta_{6j} E_i + \beta_{7j} S_i \quad (2)$$

where p_j is the probability of observing outcome j. Thus, the coefficient β_{sj} can be interpreted as the effect on the logarithm of the ratio of the odds of outcome j versus outcome m for a unit change in X_S. The multinomial logit model jointly estimates the parameters for all m outcomes using maximum likelihood estimation, where the parameters for one of the choices (serving as the reference) are normalized to zero.[4]

For those who are full-time wage and salary workers at any given wave, we estimate transitions to one of four states by the next wave: remaining a wage and salary worker (the reference group), becoming self-employed (in the primary job) becoming retired (self-reported retirement), or becoming unemployed, disabled or not working for some other reason. We examine transitions between up to 5 waves (4 transitions) for the original HRS cohort. Standard errors of the model estimates are adjusted for repeated observations on the same individuals across waves using the Huber correction. Separate models are estimated for men and women. The resulting sample consists of 6,825 observed transitions between pairs of consecutive interview waves for men and 5,463 such transitions for women.

We include several demographic variables in the vector D measured as of time t: age categories of 51 to 55, 56 to 61 (the omitted category), and 62 to 67; marital status indicators for married (the omitted category), widowed/divorced, and never married; race indicators for black and other with white serving as the omitted category; and indicators for three levels of education: high school dropout, some college, and college or more, with high school graduates or GED holders serving as the reference group.[5]

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[4] With choice m as the reference choice, the coefficients that would be associated with the log of the odds of choice j relative to choice k, i.e., $\log(p_j/p_k)$, is the difference in the coefficients estimated for $\log(p_j/p_m)$ and $\log(p_k/p_m)$. Thus pairwise comparisons of the effect of a given X on the log of the odds between any two outcomes can always be computed from the estimated model coefficients.

[5] We also estimated models with an indicator for Hispanic ethnicity but the sample sizes were too small to separately identify the coefficient.

The self-employment literature suggests that access to capital is one factor that affects the decision to become self-employed. Thus, in our vector W, we include a measure of household financial wealth, pension wealth, and Social Security wealth. Financial wealth includes the net (of liabilities) value of real estate and business assets, as well as assets held in the form of checking accounts, savings accounts, stocks, bonds, and other financial assets. Pension and Social Security wealth are calculated using HRS restricted data that provides details on the value of these retirement annuities.[6] In each case, the present discounted value of the annuity is calculated as of age 62. We allow for nonlinearities in the impact of these three wealth components on employment transitions by defining wealth quartiles at time t with the first wealth quartile serving as the reference group. Quartiles are defined with respect to the entire HRS population. In addition to controlling for pension wealth, we include a series of indicator variables that control for the type of pension plan(s). Plans are categorized as defined contribution (DC) only, defined benefit (DB) only, both DC and DB, and pension type unknown. We also include an indicator for whether the respondent ever received an inheritance.

A number of studies have shown that workers in poor health retire earlier than healthy workers (for a review, see Sammartino, 1987). In the vector H, we measure health at baseline (time t) in three ways: a self-reported five point scale from excellent to poor; whether a worker has a health condition that limits the type or amount of work he or she can do; and the number of reported difficulties with activities of daily living (ADLs). The ADLs include bathing, dressing, eating, getting in and out of bed and walking across a room. Based on prior research, we

[6] The restricted data link HRS respondents to their Social Security earnings records and pension plan details provided by their employers. Since not all respondents gave permission for these data to be obtained, these variables are missing for 10 to 20 percent of the sample. We include dummy variables to control for these cases of missing data.

redefine the five-point self-reported health scale to be a three-point scale by combined excellent and very good and fair and poor. The middle category, "good," serves as the reference group.

The effect of access to post-retirement health insurance on retirement is also well documented (Gruber and Madrian, 1993; Karoly and Rogowski, 1994; Rogowski and Karoly, 2000). Thus, in the vector *I*, we include an indicator variable for whether the worker has health insurance from an employer but no retiree health insurance and an indicator for whether a worker has employer-based coverage and access to retiree health insurance. We also include an indicator for the small fraction of the sample with access to retiree health benefits only but no coverage from their current employment. Those with no employment-based health insurance serve as the reference group. Retiree health coverage may facilitate transitions to self-employment because workers can leave wage employment and still receive health benefits through their prior employer's group plan. Such coverage is likely to be considerably less expensive than purchasing an individual plan or group coverage for a small business.

In addition to employment-based health insurance, we also consider the role that other current job characteristics, *J*, play in affecting labor market transitions. First, we include the log of the wage rate on the current job, along with an indicator variable for those cases where the wage is missing. In earlier work, Fuchs (1982) showed that current hours and occupation group were associated with transitions to self-employment. His research suggests that one consideration in making the choice between wage employment, self-employment and withdrawal from the labor force for older workers is job flexibility. Thus, we include an indicator for whether the worker can reduce hours if he or she wants, a series of indicators for broad occupation groups, and an indicator for whether the job requires a lot of physical effort all or most of the time.

We also include a measure of the respondent's self-reported probability of retiring by age 62 (the scale is from 0 to 100) as a measure of retirement expectations, *E*. Hurd (1999) demonstrates that measures of retirement expectations in the HRS are predictive of eventual retirement behavior. Thus, we expect the inclusion of these measures in our model in *E* will be a significant determinant of the transition to retirement but we will also determine if they are predictive of transitions to self-employment as well. Since there is heaping in the responses to this question, especially at the values 0, 50 and 100, we treat 50 as the reference group and define 4 other indicator variables for the following values or ranges of values: 0, 1 to 49, 51 to 99, and 100. A fraction of respondents do not answer this question so we also include an indicator for those cases with a missing value.

Our specification in (1) also includes a spouse's characteristics, *S*. Although we do not model household decisionmaking, we might expect a spouse's characteristics to be important for understanding an individual's employment status decision. For example, to the extent that self-employment is regarded as being more risky than paid employment, a worker with a spouse in paid employment may face lower risk due to lower variance in household earnings than a worker with a spouse not in the labor force or a spouse also engaged in self-employment. The spousal characteristics are defined in a parallel fashion as the respondent's and include the spouse's demographic characteristics, wealth (inheritance only since the respondent's wealth measures discussed above are for the household), health status and health insurance coverage, job characteristics, and retirement expectations.

Finally, we include indicators for the base year, *t*, to control for any time trends in labor force transitions due to changes in the economy. During an economic downturn, middle-aged and older workers may be the target of lay-offs and retirement buy-outs. Periods of economic

expansion may lead to labor shortages. Although the HRS data from 1992 to 2000 essentially capture a period of economic expansion, the year indicator variables will control for all economy-wide factors that vary through time. The initial base year, 1992, serves as the reference group. We also include a number of other indicator variables for missing values in several other variables in addition to those discussed above. We do not report these results as they each affect less than 1 percent of the sample.[7]

MULTIVARIATE RESULTS

We now consider the characteristics of respondents and their impact on the transition from full-time wage and salary work to self-employment, retirement or to another not working state (unemployed, disabled, not in the labor force). Tables 5 and 6 show the coefficients, standard errors, and marginal effects for multinomial regression models estimated for males and females respectively for the models discussed above.[8] In each model, remaining as a wage and salary worker is the reference state. While our focus is on factors associated with transitions to self-employment, at the end of this section, we briefly summarize the results with respect to transitions to retirement and compare our findings with other studies in the more extensive retirement literature.

Demographic Characteristics

Results reported in Table 5 show that there is no statistically significant relationship between age, race, or marital status and self-employment transitions for men. For women, race

[7] The affected variables are listed in the tables' notes.

[8] The marginal effects are calculated as the change in the probability of a given outcome for a unit change in the covariate. In the case of dummy variables, the change is from a value of 0 to a value of 1. The marginal effects

is also not significant but those ages 51 to 55 are slightly more likely to become self-employed compared with those age 56 to 61 (a marginal effect of 0.1 percentage points) (see Table 6). Martial status is also significantly related to self-employment transitions for women, with never married women and widowed and divorced women more likely to transition to self-employment compared with their married counterparts (marginal effects of 0.3 and 0.2 percentage points, respectively). For men, the magnitudes are similar for the different marital status groups in contrast to findings reported in the literature for younger males.

Table 5 shows that the probability of transitioning to self-employment is positively related to the level of education, especially for men. For both men and women, the probability is smallest and about equal for the two lowest education groups (dropouts and high school graduates), and increases monotonically for each successively higher education group. For men the relationship is more dramatic: having a college education increases the likelihood of transitioning to self-employment by 0.6 percentage points or 32 percent of the baseline probability of transitioning to self-employment (1.9 percent in Table 2)—a probability that is (at the 10 percent level) statistically different from that for high school graduates. For women, the probability increases by 10 percent between the same two education groups (0.1 percentage points on a baseline probability of 1 percent), but the difference is not statistically significant (Table 6). Because we are controlling for Social Security, pension, financial, and housing wealth, education is picking up an effect independent of wealth, perhaps related to ability or entrepreneurship.

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in Tables 5 and 6 multiplied by 100 can be interpreted as the percentage point change in the probability of a given outcome for a unit change in the covariate.

Wealth, Pensions, and Inheritances

Financial wealth significantly affects transitions to self-employment for men and women and the relationship is nonlinear. Compared to the first wealth quartile, having household wealth in the fourth quartile of the distribution increases the probability of becoming self-employed by 47 percent for men and 10 percent for women. These results are consistent with findings from the literature on the determinants of self-employment (Holtz-Eakin, Joulfaian, and Rosen, 1994; Dunn and Holtz-Eakin, 1995; Blanchflower and Oswald, 1998). In particular, as noted earlier, a number of prior studies provide evidence that access to capital is associated with movements into self-employment although these results pertain either to all workers or younger workers. These results based on household wealth in the HRS indicate that this pattern holds for older workers as well. In contrast, Social Security wealth at age 62 is not significantly related to transitions to self-employment for either men or women (Tables 5 and 6).

Access to pension coverage, which captures another form of wealth and likely also captures an aspect of job quality, has an influence on self-employment transitions. For both men and women, those with some form of pension plan are less likely to move to self-employment compared with those with no pension plan. The effects for men are particularly striking with a decrease in the probability of moving to self-employment of 79 percent for male workers with a DB plan and 68 percent for male workers with a DC plan compared to workers with no pension plan. This result is consistent with Fuchs' (1982) study using the RHS and thus an older cohort, which also found that those expecting a pension on the current job were less likely to become self-employed. While the existence of a pension plan affects movements into self-employment, the relationship to the amount of pension wealth is not nearly as strong. For men, higher pension wealth at age 62 is associated with a lower likelihood of transitioning to self-

employment, with an impact for the fourth quartile that is only marginally significant (Table 5). There is no relationship for women between pension plan value and self-employment transitions.

The self-employment literature suggests that inheritances for younger workers may affect self-employment rates. Table 5 shows that among full-time wage and salary men, ever receiving an inheritance significantly increases the probability of transitioning to self-employment by 63 percent compared to never having received an inheritance. In contrast, controlling for own inheritance status, having a spouse who has ever received an inheritance significantly decreases the likelihood for men of becoming self-employed by 37 percent. Women's transitions to self-employment are not related to either their own or their spouse's inheritance status.

Health Status

We include several health measures in the model but the only significant relationship is for men and women who report that their health limits their work. The likelihood of moving to self-employment increases by 47 percent for men with a health condition that limits their work relative to workers without a work limiting health condition. For women, a work-limiting health condition increases the likelihood of moving to self-employment by 30 percent. While the effect of poor health on retirement has been well documented in the literature (Sammartino, 1987), this is one of the few analyses to show that health conditions that limit work may also push workers into self-employment from the wage sector. In fact, Fuchs' (1982) study of transitions from wage work to self-employment for men in the earlier RHS found no impact of health status or work limitations. Our finding may indicate that it is easier to make accommodations in the work environment when self-employed compared to being an employee.

Health Insurance Access

We examine the impact on transitions to self-employment of access to employer-provided health insurance (EHI) and employer-provided retiree health insurance (RHI) in a worker's own name and through their spouse's employment. For men, the probability of becoming self-employed is highest for those with no own employer-based coverage, while the probabilities are significantly lower for those with employer coverage as an active employee only or with active and retiree coverage. The probability is slightly higher for those with access to RHI compared with those who only have coverage as an active worker. A similar pattern holds for women although the differences are not as sharp between those with own RHI versus those with only active worker coverage. The effect of access to employment-based health insurance may be picking up other unobserved aspects of the wage job that reflect a high quality job and therefore deters transitions out of the wage sector. Another interpretation is that jobs that provide health insurance for active workers but no retiree health benefits are associated with "job lock" as workers who leave such jobs would lose their employment-based coverage. Thus, they are deterred from departing from such jobs until they become eligible for Medicare coverage. There is some evidence for this type of job lock cited earlier although the literature is not consistent regarding this phenomenon.

The impact of spousal health insurance coverage is also reported in Tables 5 and 6. For men, transitions to self-employment are most likely for those whose spouse has no employment-based coverage or those with retiree health benefits. Those with active worker coverage only have the lowest likelihood of becoming self-employed. This result can be reconciled with the job lock hypothesis if couples anticipate that coverage as an active worker would be lost should the spouse eventually leave or lose her job. However, we would also expect that men with a

spouse with retiree health insurance coverage might be even more likely to become self-employed than those with no employment-based coverage and that is not the case. The results for women are even more puzzling as women whose spouse has retiree health benefits are the least likely to move to self-employment.

Job Characteristics

The two job characteristics that have the strongest relationship to movements to self-employment are a measure of hours' flexibility and the occupation in the wage and salary job. Being able to reduce hours at a wage and salary job increases the likelihood for men of moving to self-employment by 21 percent compared to men who cannot reduce hours. While the direction of the effect is the same for women, the marginal effect is much smaller and not statistically significant. The results for men suggest that it is not the case that workers who want to reduce their hours in the wage sector but cannot move to self-employment.[9] Instead, it is possible that those with hours flexibility on their wage sector job move to self-employment as their primary job, while continuing to work on a part-time basis in their wage job (now secondary to the self-employment work).

We examine the relationship between the occupation in the wage and salary job and transitions to self-employment. Men in executive, sales, and laborer positions are significantly more likely to become self-employed compared to men in administrative support positions. The largest effect is for men in sales positions for whom the probability of transitioning to self-employment increases by 63 percent. For women, the extremes are between those in executive, administrative or managerial occupations and those in farming, forestry and fisheries. For men

especially, these results closely mirror Fuchs' (1982) findings that men in certain occupations in their wage and salary job—interpreted as those that mirror self-employment conditions of autonomy and pay tied to performance—were more likely to become self-employed.

Among the other job characteristics included in the model (see Tables 5 and 6), there is no significant impact of the wage rate for women, while the wage is marginally significant for men, with an effect that indicates an increased likelihood of becoming self-employed for those with higher wages. For both men and women, there is no significant impact of having a job that is physically demanding all or most of the time on transitions to self-employment.

Other Covariates

Retirement expectations have no effect on transitions to self-employment for men, while for women, those who report a zero probability of working full time past age 62 are significantly more likely to transition to self-employment (with a marginal effect of 0.1 percentage points). There are no differences across time in women's transitions to self-employment, while for men, there was a significant drop in the probability in 1996 (a marginal impact of 0.7 percentage points).

Aside from the impact of spousal inheritance status and health insurance coverage discussed above, there is no significant impact for men of any of the other spousal demographic characteristics, health status, pension coverage, job characteristics, or retirement expectations. Among women, a somewhat different set of spousal characteristics appears to affect transitions to self-employment. There is a marginally significant (at the 10 percent level) effect that women

[9] Our descriptive analysis of transition probabilities indicated that workers in self-employment do transition to part-time work at higher rates than those in the wage sector. Such transitions are not captured in the regression analysis presented here.

whose spouse is in fair or poor health are less likely to become self-employed compared with those whose spouse is in good health (marginal effect of 0.1 percentage points). More striking is the estimated impact for women of having a working spouse, where there is a strongly significant negative impact of becoming self-employed when the husband works. In addition, women whose spouse is in a white collar occupation are more likely to become self-employed, as are those whose spouse has a physically demanding job all or most of the time.

Determinants of Transitions to Retirement

While our primary interest in the model is on determinants of transitions to self-employment, we briefly summarize here the findings with respect to retirement and when notable, findings with respect to transitions to not working (see Tables 5 and 6). Among demographic characteristics, retirement transitions for men and women increase significantly with age, consistent with many other studies of retirement behavior in the literature. In contrast to males where the respondent's race is not a predictor of retirement, females in the other race category are less likely to retire compared to their white counterparts. For males, college education is associated with a lower probability of retiring, a result commonly found in the retirement literature.

Consistent with the retirement literature (Hurd, 1990), financial wealth is associated with an increased likelihood of transitions to retirement. Surprisingly, we do not find a strong relationship between either Social Security or pension wealth and retirement transitions. Other research has shown that becoming eligible for pension benefits between waves is a strong predictor of retirement (Hurd, Smith, Zissimopoulos, forthcoming). We also find no effect of pension plan coverage or pension plan type on the probability of retiring.

Among the health status measures, the presence of a work-limiting health condition is strongly positively associated with transitions to retirement with marginal effects for men and women of 6 and 3 percentage points, respectively. For women in fair or poor health, the likelihood of transitioning to retirement is also increased compared to those in good health. Having a work-limiting health condition, being in fair or poor health, or having a higher number of ADLs (another measure of poor health that is likely to capture even more serious health conditions) all increase the likelihood of transitioning to not working for both men and women. These results are consistent with those of the retirement literature (e.g., see Sammartino, 1987).

For both men and women, those with continued health coverage as a retiree health benefit are significantly more likely to retire than those with active worker coverage only.[10] This finding is consistent with a number of other studies of retirement behavior (Gruber and Madrian, 1993; Karoly and Rogowski, 1994; Rogowski and Karoly, 2000). At the same time, unlike Karoly and Rogowski (1997), we do not find that having a spouse with retiree health benefits on the job increases the probability of retirement for men or women, although the sign of the effect is in the expected direction.

The probability of working full time after age 62 is an important predictor of actual retirement, consistent with prior studies in the literature. The likelihood of retiring increases 17 percentage points for men who report a probability of zero of continued full-time work past age 62 compared with those who report a 50 percent probability. For women, the marginal effect is 11 percentage points for the same contrast. At the other extreme, men who report a 100 percent probability of continued full-time work at age 62 are 5 percentage points less likely to retire than

[10] The difference in the coefficient between those with active worker coverage only and those with active worker coverage and a retiree health benefit is statistically significant at the 1 percent level for both men and women.

those who report a 50 percent probability, while the effect for women is 3 percentage points. The impacts for men are not monotonic as the effects are largest but decreasing for probabilities of 0 and 1 to 49, but about equal for probabilities of 51 to 99 and 100. A more monotonic pattern is evident for women. There is some evidence for women that these expectations are also predictive of transitions to not working with those who report the highest probabilities of continued work (values of 51 to 99 and 100) less likely to be not working in the subsequent wave.

Only a few spousal characteristics affect transitions to retirement. Age is associated with an increase in the likelihood of retiring between waves. Among the measures of spousal health status, only the presence of a work-limiting health condition for the spouse raises the probability of retirement for women. Among job characteristics for men, the probability of retirement is increasing in the spouse's wage, is lower for those with a spouse in a white collar occupation than for those with a spouse in another type of occupation, and is lower for those whose spouse has a physically demanding job relative to a spouse without a physically demanding job. These same spousal variables have no effect on women's retirement transitions. Finally, for men, the wife's retirement expectations have some impact on transitions to retirement, with men whose wives report a zero probability of continued work past age 62 more likely to retire themselves by the following wave compared to those whose wives report a 50 percent probability. For women, those who husbands report a 51 to 99 percent or 100 percent probability of working full time after age 62 are less likely to retire than those who report a 50 percent probability.

CONCLUSIONS

Our study of self-employment among workers age 51 and above was motivated by the relative paucity of studies examining the patterns and determinants of self-employment among older U.S. workers. Although self-employment rates rise steadily with age, our knowledge of self-employment behavior is largely confined to younger workers or analyses of the self-employed workforce as a whole. There has been little effort to identify the factors associated with transitions to self-employment at older ages, and to determine how the determinants might vary for men and women. We compare our findings to those that do exist in the literature, particularly that of Fuchs (1982) who examined transitions to self-employment using an earlier birth cohort from the RHS.

Longitudinal data from the HRS reveal that self-employment rates peak at 24 percent for women and 38 percent for men at ages 66 and 65, respectively. This pattern reflects the higher rates of retirement out of wage and salary work compared with self-employment, as well as transitions from wage work to self-employment at older ages. There is also evidence in the HRS that self-employed workers are more likely to transition to part-time work, perhaps as a bridge to retirement, compared with their wage counterparts. This pattern suggests that there may be greater flexibility among the self-employed to reduce their hours of work rather than completely retiring from the workforce.

Our multivariate models of the determinants of transitions to self-employment from full-time wage and salary work for men and women ages 51 to 67 identifies both push and pull factors that may drive the decision among older workers to become self-employed. For example, poor health—as measured by the presence of a work-limiting health condition—appears to be a push factor. This result differs from Fuchs' (1982) earlier study, which found no impact of

health on transitions to self-employment for men. This result may indicate that workers with a work-limiting health condition are better able to accommodate their condition and continue working if they are self-employed compared with employment in the wage sector.

Higher wealth holdings may be a pull factor. Men and women in the highest wealth quartile were significantly more likely to move to self-employment than their counterparts in the lower wealth quartiles. This result is consistent with prior research that shows that access to capital is a significant determinant of becoming self-employed although our study is one of the first to show this result for transitions to self-employment at older ages. In addition, we find that transitions to self-employment are more likely for men that have ever received an inheritance but less likely if their spouse had received an inheritance in the past.

Among the measures of employer-provided benefits, we find that having pension coverage in the current job reduces the likelihood of becoming self-employed—a result that is consistent with prior literature. We find that health insurance coverage may be capturing job quality or possibly a form of job lock that deters transitions that would lead to a loss of health coverage. At the same time, men with a spouse who has health insurance on their current job or women who spouse has retiree health coverage are less likely to move to self-employment, a result that goes against the job-lock hypothesis.

In terms of job characteristics, we find that workers with more flexibility on their wage and salary job are more likely to become self-employed, which does not accord with the view that workers who desire more flexibility later in their career move into self-employment. It is possible that great flexibility in the wage job allows workers to combine wage and self-employment work simultaneously, thereby easing the transition to self-employment. Alternatively, workers who would find self-employment appealing may also be drawn to wage

jobs with more flexibility in hours. In addition, transitions to self-employment are higher for certain occupations—a result that is consistent with earlier research (on men) suggesting that wage workers in jobs with more autonomy or pay tied to performance were more likely to become self-employed.

Demographic factors were generally not strongly associated with transitions to self-employment for men or women. Our results on a spouse's characteristics are suggestive of the fact that self-employment decisions may be best reviewed from the perspective of the household rather than the individual. Transitions to self-employment for older men and women appear to be driven by many of the same factors yet there are some important differences, particularly in the role of spousal variables.

Our models also confirmed the results of prior studies of the determinants of transitions to retirement. For example, movements to retirement rise with age, financial wealth, poor health, access to retiree health benefits and, particularly for men, are somewhat lower for the more educated. Retirement expectations are also highly predictive of future retirement.

Whether or not future cohorts of older workers move into self-employment at the same rates as the cohorts we observe in the HRS remains to be seen. Such transitions are likely to be affected by the state of the economy, the value of individual wealth portfolios, and other factors. To the extent that self-employment requires an upfront investment, older workers may draw down their assets to invest in a new business, an investment that may or may not be paid back during the retirement years. Their ability to draw down assets to invest in a new business may depend on the level of accumulated financial assets, and on their ability to cash-out pension benefits. Public policies and market forces that we have not considered may also affect self-employment transitions for future cohorts of older workers. For example, policies with respect

to the Social Security system such as early and normal retirement ages, the treatment of earnings among those drawing benefits, and the structure of the Social Security self-employment tax may have implications for whether older workers choose to move to self-employment from the wage sector, and when workers choose to retire from self-employment. Other aspects of state and local policy pertaining to unemployment insurance, worker's compensation, disability insurance, and other social insurance programs may also differentially influence the self-employment decisions of older workers compared to younger workers. For example, some states have begun experimenting with offering lump sum unemployment benefits that could be used to start a new business instead of searching for another wage and salary job. Further advances in technology, especially communications and information-based technologies, may further facilitate increased rates of self-employment through home-based enterprises.

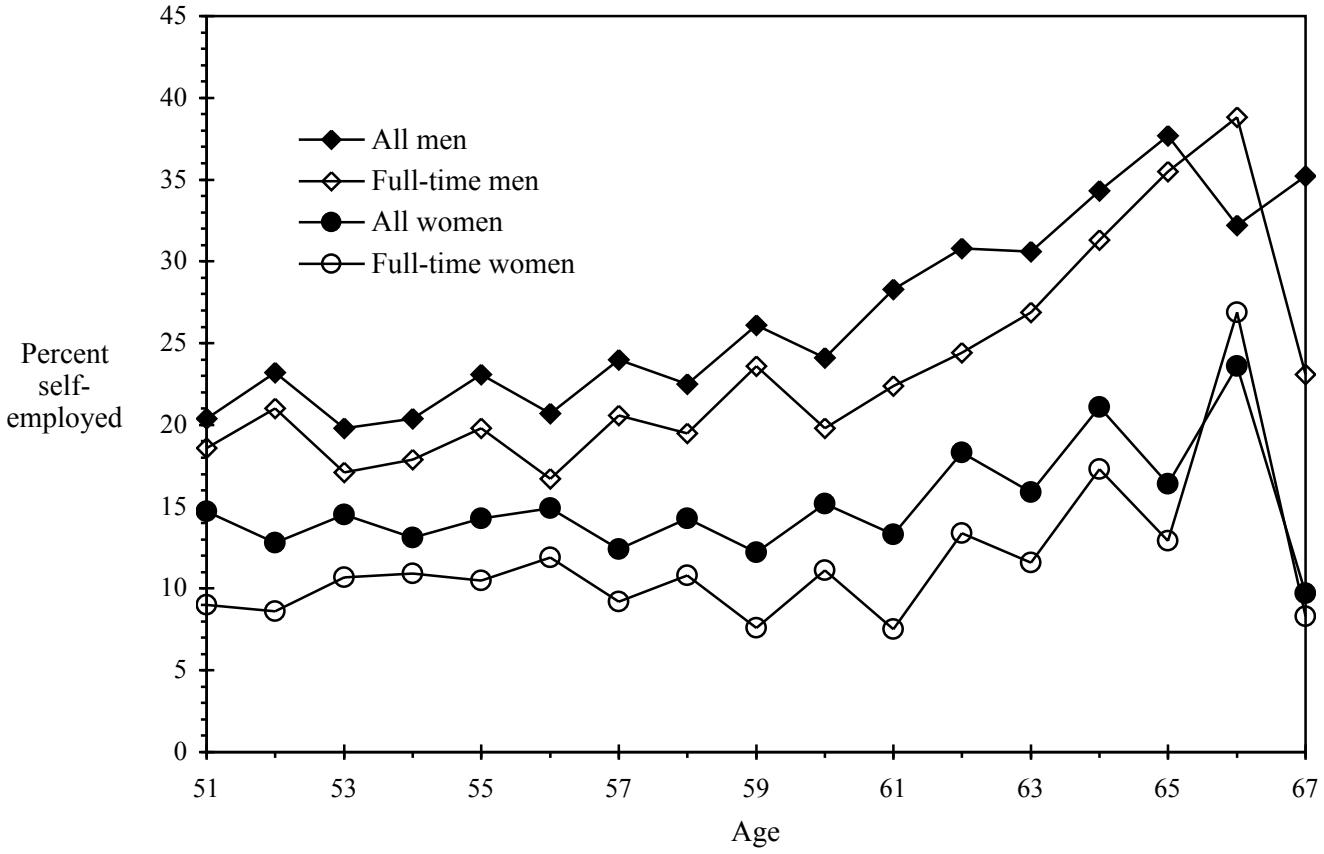

Figure 1—Self-Employment Rates in the HRS among Men and Women Workers by Age

NOTE: Sample is all workers and all full-time workers age 51 to 67. Means have been calculated using HRS sampling weights.
SOURCE: Authors' calculations using HRS 1992-2000.

Table 1—Employment Transitions for Men and Women in the HRS, Total and By Age

Status at time *t*	Status at time *t+2* (percent distribution)					Sample size
	Wage and salary	Self-employed	Retired	Unemp./disab.	Not in LF	
a. Men						
Wage and salary workers						
All	72.8	1.9	22.1	2.7	0.5	7,740
By age						
51-55	85.0	2.6	8.6	3.2	0.6	2,406
56-61	72.4	1.7	22.9	2.7	0.4	4,315
62-67	45.7	1.4	50.7	1.5	0.7	1,019
Self-employed workers						
All	6.5	64.8	25.9	1.9	1.0	2,498
By age						
51-55	8.9	74.3	11.8	2.8	2.2	642
56-61	6.6	66.7	24.4	1.8	0.5	1,370
62-67	3.1	46.9	48.6	0.8	0.6	486
Not working						
All	5.0	2.1	77.4	14.3	1.3	4,291
By age						
51-55	12.5	3.4	56.4	25.1	2.6	622
56-61	5.1	2.3	73.3	17.8	1.7	2,045
62-67	2.0	1.3	90.6	5.7	0.4	1,624
b. Women						
Wage and salary workers						
All	71.8	1.1	21.8	2.8	2.6	7,717
By age						
51-55	83.3	1.6	8.4	3.1	3.6	2,395
56-61	71.5	0.8	22.9	2.8	2.1	4,345
62-67	45.1	1.0	49.4	2.3	2.2	977
Self-employed workers						
All	6.1	56.5	28.0	1.5	7.9	1,279
By age						
51-55	6.4	69.9	13.4	2.8	7.5	388
56-61	7.1	56.6	27.6	0.9	7.9	675
62-67	2.3	32.4	55.6	0.9	8.8	216
Not working						
All	4.4	1.6	50.7	11.7	31.8	8,095
By age						
51-55	9.5	2.9	31.8	17.0	38.8	1,499
56-61	4.3	1.7	47.3	13.0	33.7	4,131
62-67	1.3	0.5	67.8	6.3	24.1	2,465

NOTES: Sample is persons age 51 to 67 at time *t*. Percents have been calculated using HRS sampling weights. Sample size is number of transitions observed (person-wave pairs).
SOURCE: Authors' calculations using HRS 1992-2000.

Table 2—Employment Transitions for Full-Time Men and Women Workers in the HRS, Total and By Age

Status at time *t*	Status at time *t+2* (percent distribution)				Sample size
	Wage and salary	Self-employed	Retired	Not working	
		a. Men			
Full-time wage and salary workers					
All	78.0	1.9	17.2	2.9	6,836
By age					
51-55	86.9	2.4	7.1	3.6	2,243
56-61	76.2	1.8	19.3	2.7	3,884
62-67	59.0	1.3	37.8	2.0	709
Full-time self-employed workers					
All	6.8	77.9	12.9	2.4	1,770
By age					
51-55	8.3	81.9	6.1	3.7	508
56-61	7.2	77.8	12.9	2.0	983
62-67	2.9	71.0	25.1	1.1	279
		b. Women			
Full-time wage and salary workers					
All	78.4	1.0	16.0	4.6	5,463
By age					
51-55	87.1	1.3	6.1	5.6	1,830
56-61	76.7	0.8	18.4	4.2	3,110
62-67	58.3	1.0	36.5	4.2	523
Full-time self-employed workers					
All	5.5	73.5	13.1	7.9	619
By age					
51-55	4.2	81.7	6.6	7.5	213
56-61	7.4	72.5	13.0	7.1	323
62-67	1.2	56.6	30.1	12.0	83

NOTES: Sample is full-time workers age 51 to 67 at time *t*. Percents have been calculated using HRS sampling weights. Sample size is number of transitions observed (person-wave pairs).
SOURCE: Authors' calculations using HRS 1992-2000.

Table 3—Decomposition of Changes in Relative Importance of Self-Employment for Full-Time Workers

	Men		Women	
Age	Percentage point change in importance of self-employment from *t* to *t+2* (C)	Percent of C due to net shifts from wage and salary to self-employment sectors (P)	Percentage point change in importance of self-employment from *t* to *t+2* (C)	Percent of C due to net shifts from wage and salary to self-employment sectors (P)
51-55	0.6	75.8	0.6	147.4
56-61	1.4	-1.6	0.3	12.2
62-67	4.5	4.0	0.9	134.0

NOTES: Sample is full-time workers age 51 to 67 at time *t*.
SOURCE: Authors' calculations using HRS 1992-2000.

Table 4—Employment Transitions to Full-Time and Part-Time Work for Full-Time Men and Women Workers in the HRS

	Status at time *t+2* (percent distribution)						
	Full-time		Part-time				
Status at time *t*	Wage and salary	Self-employed	Wage and salary	Self-employed	Retired	Not working	Sample size
			a. Men				
Full-time workers							
Wage and salary	76.0	1.6	2.0	0.3	17.2	2.9	6,836
Self-employed	6.3	71.1	0.5	6.8	12.9	2.4	1,770
			b. Women				
Full-time workers							
Wage and salary	72.5	0.7	5.9	0.3	16.0	4.6	5,463
Self-employed	3.7	61.1	1.8	12.4	13.1	7.9	619

NOTES: Sample is full-time workers age 51 to 67 at time *t*. Percents have been calculated using HRS sampling weights. Sample size is number of transitions observed (person-wave pairs)..
SOURCE: Authors' calculations using HRS 1992-2000.

Table 5—Determinants of Employment Transitions for Full-Time Wage and Salary Men
(multinomial logit coefficients and marginal effects)

Variable	Mean	Self-employed at *t+2*	Retired at *t+2*	Not working at *t+2*
Age group [56 to 61]	0.568			
51 to 55	0.328	0.171	-1.008 ***	0.279
		(0.217)	(0.104)	(0.189)
		[0.002]	[-0.088]	[0.008]
62 to 67	0.104	0.268	1.014 ***	-0.262
		(0.495)	(0.145)	(0.337)
		[0.000]	[0.175]	[-0.007]
Race [White]	0.835			
Black	0.127	-0.043	-0.175	0.147
		(0.383)	(0.115)	(0.209)
		[-0.000]	[-0.018]	[0.004]
Other	0.036	-0.999	-0.200	0.044
		(0.707)	(0.211)	(0.356)
		[-0.005]	[-0.020]	[0.001]
Marital status [Married]	0.877			
Widowed/divorced	0.098	0.077	0.255	-0.540
		(0.813)	(0.688)	(0.959)
		[0.000]	[0.031]	[-0.009]
Never married	0.024	-0.151	-0.163	-0.479
		(0.904)	(0.729)	(1.044)
		[-0.001]	[-0.015]	[-0.008]
Education [High school graduate/GED]	0.362			
High school drop-out	0.211	0.037	0.054	-0.089
		(0.302)	(0.105)	(0.206)
		[0.000]	[0.006]	[-0.002]
Some college	0.195	0.459 *	0.012	0.012
		(0.267)	(0.101)	(0.232)
		[0.004]	[0.001]	[0.000]
College graduate and above	0.232	0.640 *	-0.265 **	-0.205
		(0.374)	(0.126)	(0.318)
		[0.006]	[-0.026]	[-0.003]
Wealth quartile [Quartile 1]	0.238			
Quartile 2	0.278	0.271	0.054	-0.217
		(0.286)	(0.114)	(0.198)
		[0.002]	[0.005]	[-0.004]
Quartile 3	0.278	0.086	0.442 ***	0.105
		(0.310)	(0.118)	(0.220)
		[0.000]	[0.047]	[0.001]
Quartile 4	0.206	0.952 ***	0.348 ***	-0.483
		(0.326)	(0.135)	(0.317)
		[0.009]	[0.036]	[-0.009]

Table 5—Continued

Variable	Mean	Self-employed at *t+2*	Retired at *t+2*	Not working at *t+2*
SS wealth at age 62 quartile [Quartile 1]	0.206			
Quartile 2	0.220	-0.149	-0.314 ***	-0.238
		(0.341)	(0.115)	(0.231)
		[-0.001]	[-0.032]	[-0.004]
Quartile 3	0.221	0.145	-0.290 **	-0.392
		(0.334)	(0.115)	(0.256)
		[0.001]	[-0.030]	[-0.006]
Quartile 4	0.176	0.351	0.124	0.030
		(0.350)	(0.119)	(0.278)
		[0.003]	[0.014]	[0.000]
SS wealth at age 62 missing	0.176	0.187	-0.076	0.086
		(0.381)	(0.151)	(0.310)
		[0.002]	[-0.009]	[0.002]
Pension wealth at age 62 quartile [Quartile 1]	0.186			
Quartile 2	0.214	-0.339	0.201 *	-0.106
		(0.312)	(0.109)	(0.222)
		[-0.003]	[0.022]	[-0.003]
Quartile 3	0.230	-0.107	0.120	-0.422 *
		(0.315)	(0.113)	(0.255)
		[-0.001]	[0.014]	[-0.009]
Quartile 4	0.251	-0.587 *	0.173	-0.868 ***
		(0.343)	(0.124)	(0.294)
		[-0.005]	[0.021]	[-0.015]
Pension wealth at age 62 quartile missing	0.119	-0.334	-0.446 **	0.095
		(0.341)	(0.175)	(0.270)
		[-0.003]	[-0.037]	[0.004]
Pension access [no pension]	0.279			
DC pension	0.122	-1.205 ***	-0.182	-0.644 *
		(0.362)	(0.139)	(0.352)
		[-0.013]	[-0.016]	[-0.010]
DB pension	0.226	-1.615 ***	0.017	-0.254
		(0.393)	(0.121)	(0.273)
		[-0.015]	[0.004]	[-0.005]
DB and DC pension	0.125	-1.005 ***	0.089	-0.254
		(0.371)	(0.139)	(0.346)
		[-0.012]	[0.012]	[-0.005]
Don’t know pension type	0.238	-1.017 ***	-0.281 **	0.024
		(0.286)	(0.119)	(0.244)
		[-0.012]	[-0.027]	[0.002]
Ever received inheritance	0.260	1.126 ***	-0.064	0.526
		(0.387)	(0.192)	(0.362)
		[0.012]	[-0.009]	[0.011]

Table 5—Continued

Variable	Mean	Self-employed at *t+2*	Retired at *t+2*	Not working at *t+2*
Health status [Good]				
Excellent or very good	0.559	-0.057	-0.091	-0.077
		(0.211)	(0.081)	(0.174)
		[-0.000]	[-0.009]	[-0.001]
Fair or poor	0.125	-0.039	0.193	0.434 **
		(0.356)	(0.118)	(0.208)
		[-0.001]	[0.021]	[0.009]
Health condition limits work	0.082	0.908 ***	0.507 ***	0.631 ***
		(0.286)	(0.129)	(0.217)
		[0.009]	[0.058]	[0.013]
Number of ADLs	0.038	-0.241	0.044	0.403 **
		(0.474)	(0.131)	(0.172)
		[-0.000]	[0.000]	[0.000]
Health insurance [no employer HI]	0.189			
Employer health insurance only	0.304	-0.761 **	-0.315 **	-0.380 *
		(0.302)	(0.126)	(0.210)
		[-0.007]	[-0.029]	[-0.009]
Retiree health insurance only	0.000	-31.517 ***	-31.282 ***	-31.303 ***
		(1.665)	(1.126)	(1.364)
		[-0.013]	[-0.124]	[-0.033]
Employer and retiree health insurance	0.507	-0.531 *	0.077	-0.883 ***
		(0.280)	(0.118)	(0.236)
		[-0.005]	[0.012]	[-0.019]
Wage				
Log (hourly wage)	2.442	0.420 *	-0.050	0.082
		(0.242)	(0.094)	(0.168)
		[0.000]	[0.000]	[0.000]
Wage rate missing	0.081	0.867	-0.152	0.302
		(0.788)	(0.288)	(0.489)
		[0.010]	[-0.017]	[0.007]
Can reduce hours at work	0.257	0.394 **	-0.031	-0.039
		(0.194)	(0.083)	(0.178)
		[0.004]	[-0.004]	[-0.001]

Table 5—Continued

Variable	Mean	Self-employed at *t+2*	Retired at *t+2*	Not working at *t+2*
Occupation [Administrative support]	0.062			
Executive, administrative, managerial	0.177	2.063 **	0.236	0.752 *
		(1.048)	(0.162)	(0.456)
		[0.009]	[0.022]	[0.011]
Professional specialty	0.147	1.464	0.157	0.747
		(1.088)	(0.170)	(0.497)
		[0.004]	[0.014]	[0.011]
Sales	0.065	2.389 **	0.318	0.538
		(1.065)	(0.199)	(0.534)
		[0.012]	[0.031]	[0.006]
Services	0.093	1.762	0.052	0.470
		(1.124)	(0.175)	(0.475)
		[0.006]	[0.004]	[0.006]
Farming, forestry, fisheries	0.029	1.304	0.240	0.414
		(1.334)	(0.264)	(0.579)
		[0.003]	[0.023]	[0.005]
Production, craft, repair, laborers	0.424	2.142 **	0.186	0.727 *
		(1.040)	(0.143)	(0.428)
		[0.009]	[0.016]	[0.010]
Job is physically demanding	0.394	-0.091	-0.008	0.136
		(0.237)	(0.083)	(0.176)
		[-0.001]	[-0.001]	[0.003]
Prob. of working full time after age 62 [50]	0.118			
0 percent	0.208	-0.115	1.117 ***	-0.005
		(0.376)	(0.131)	(0.271)
		[-0.003]	[0.165]	[-0.004]
1 to 49 percent	0.136	-0.392	0.538 ***	0.064
		(0.409)	(0.146)	(0.276)
		[-0.004]	[0.065]	[-0.000]
51 to 99 percent	0.179	-0.166	-0.600 ***	-0.172
		(0.341)	(0.167)	(0.269)
		[-0.001]	[-0.047]	[-0.002]
100 percent	0.198	0.304	-0.605 ***	-0.105
		(0.315)	(0.158)	(0.255)
		[0.004]	[-0.047]	[-0.001]
Missing	0.161	-0.681	0.036	0.178
		(0.504)	(0.173)	(0.293)
		[-0.005]	[0.004]	[0.004]

Table 5—Continued

Variable	Mean	Self-employed at *t+2*	Retired at *t+2*	Not working at *t+2*
Year at time *t* [1992]	0.328			
1994	0.272	-0.106	0.257 **	-0.133
		(0.234)	(0.101)	(0.197)
		[-0.001]	[0.027]	[-0.003]
1996	0.222	-0.989 ***	0.124	-0.384 *
		(0.325)	(0.110)	(0.228)
		[-0.007]	[0.014]	[-0.007]
1998	0.178	-0.519	0.243 **	-0.011
		(0.331)	(0.120)	(0.259)
		[-0.005]	[0.026]	[-0.001]
Spouse characteristics				
Spouse age group [56 to 61]	0.262			
51 to 55	0.560	0.163	-0.500 ***	-0.177
		(0.257)	(0.086)	(0.204)
		[0.002]	[-0.057]	[-0.002]
62 and above	0.053	-0.029	0.145	-0.293
		(0.615)	(0.148)	(0.393)
		[-0.000]	[0.022]	[-0.005]
Spouse education [High sch. graduate/GED]	0.378			
High school drop-out	0.172	0.184	-0.003	0.314
		(0.318)	(0.110)	(0.239)
		[0.002]	[-0.001]	[0.005]
Some college	0.182	0.441	0.084	0.053
		(0.281)	(0.103)	(0.270)
		[0.004]	[0.008]	[0.001]
College graduate and above	0.135	0.072	0.044	0.463
		(0.362)	(0.135)	(0.323)
		[0.000]	[0.003]	[0.009]
Spouse has a pension	0.322	-0.451	-0.161	0.283
		(0.277)	(0.111)	(0.238)
		[-0.003]	[-0.017]	[0.006]
Spouse ever received inheritance	0.221	-1.049 **	0.044	-0.928 **
		(0.428)	(0.208)	(0.431)
		[-0.007]	[0.007]	[-0.014]

Table 5—Continued

Variable	Mean	Self-employed at *t+2*	Retired at *t+2*	Not working at *t+2*
Spouse health status [Good]	0.245			
Excellent or very good	0.445	-0.191	0.012	0.095
		(0.241)	(0.093)	(0.216)
		[-0.002]	[0.001]	[0.002]
Fair or poor	0.150	0.033	-0.079	0.240
		(0.352)	(0.121)	(0.255)
		[0.000]	[-0.009]	[0.005]
Spouse health status missing	0.159	-0.329	0.208	-0.311
		(0.383)	(0.185)	(0.391)
		[-0.003]	[0.024]	[-0.005]
Spouse health condition limits work	0.155	-0.260	0.079	-0.323
		(0.345)	(0.109)	(0.276)
		[-0.002]	[0.009]	[-0.006]
Spouse number of ADLs	0.086	0.022	-0.037	-0.093
		(0.229)	(0.084)	(0.199)
		[0.000]	[0.000]	[0.000]
Spouse health insurance [no employer HI]	0.341			
Employer health insurance only	0.504	-0.803 ***	0.060	0.339
		(0.284)	(0.106)	(0.222)
		[-0.007]	[0.006]	[0.006]
Retiree health insurance only	0.129	0.028	0.113	-0.064
		(0.286)	(0.130)	(0.283)
		[0.000]	[0.012]	[-0.001]
Employer and retiree health insurance	0.026	-0.059	0.229	0.812 *
		(0.683)	(0.246)	(0.458)
		[-0.001]	[0.023]	[0.018]
Spouse works	0.555	1.653	-0.642	0.520
		(1.218)	(0.869)	(1.049)
		[0.014]	[-0.073]	[0.011]
Spouse wage				
Log (hourly wage)	1.189	0.294	0.164 *	0.413 ***
		(0.246)	(0.091)	(0.155)
		[0.000]	[0.000]	[0.000]
Wage rate missing	0.478	0.887	0.557 **	1.245 **
		(0.675)	(0.249)	(0.494)
		[0.007]	[0.055]	[0.023]
Spouse white-collar occupation	0.395	-0.294	-0.304 **	-0.089
		(0.331)	(0.131)	(0.286)
		[-0.002]	[-0.031]	[-0.001]

Table 5—Continued

Variable	Mean	Self-employed at *t+2*	Retired at *t+2*	Not working at *t+2*
Spouse job is physically demanding	0.193	0.143	-0.234 **	0.014
		(0.280)	(0.118)	(0.225)
		[0.001]	[-0.032]	[0.001]
Spouse prob. of working FT after 62 [50]	0.084			
0 percent	0.206	-0.279	0.294 *	-0.317
		(0.395)	(0.157)	(0.322)
		[-0.003]	[0.031]	[-0.005]
1 to 49 percent	0.130	0.002	0.084	-0.025
		(0.404)	(0.175)	(0.327)
		[-0.000]	[0.008]	[-0.001]
51 to 99 percent	0.076	0.529	-0.104	-0.086
		(0.393)	(0.207)	(0.388)
		[0.007]	[-0.010]	[-0.001]
100 percent	0.063	0.178	0.219	-0.031
		(0.445)	(0.207)	(0.371)
		[0.002]	[0.021]	[-0.001]
Missing	0.441	-0.442	0.265	0.300
		(0.434)	(0.193)	(0.452)
		[-0.004]	[0.026]	[0.006]

NOTES: Sample is full-time wage and salary workers age 51 to 67 at time *t*. N=6,825. Coefficients not shown for the intercept and indicator variables for missing values for race, marital status, pension access, health status, occupation, job physically demanding, spouse age, spouse education, and spouse job physically demanding which affect less than 1 percent of the sample, Numbers in parentheses are Huber standard errors. Numbers in brackets are marginal probabilities. Statistically significant at the ***1 percent, **5 percent, and *10 percent level.

SOURCE: Authors' calculations using HRS 1992-2000.

Table 6—Determinants of Employment Transitions for Full-Time Wage and Salary Women (multinomial logit coefficients and marginal effects)

Variable	Mean	Self-employed at *t+2*	Retired at *t+2*	Not working at *t+2*
Age group [56 to 61]	0.569			
51 to 55	0.335	0.611 *	-1.152 ***	0.101
		(0.366)	(0.118)	(0.162)
		[0.001]	[-0.092]	[0.006]
62 to 67	0.096	-0.365	0.832 ***	0.209
		(0.621)	(0.200)	(0.412)
		[-0.000]	[0.131]	[0.001]
Race [White/Race missing]	0.769			
Black	0.199	-0.183	-0.107	0.160
		(0.502)	(0.111)	(0.182)
		[-0.000]	[-0.011]	[0.005]
Other	0.032	0.461	-0.704 ***	0.285
		(0.742)	(0.255)	(0.319)
		[0.001]	[-0.054]	[0.012]
Marital status [Married]	0.591			
Widowed/divorced	0.359	1.335 **	0.566	-1.412 **
		(0.678)	(0.770)	(0.626)
		[0.002]	[0.064]	[-0.044]
Never married	0.048	1.659 **	0.601	-1.434 **
		(0.806)	(0.784)	(0.691)
		[0.003]	[0.068]	[-0.044]
Education [High school graduate/GED]	0.408			
High school drop-out	0.177	-0.116	0.182	0.077
		(0.463)	(0.130)	(0.207)
		[-0.000]	[0.018]	[0.002]
Some college	0.223	0.121	-0.063	0.279
		(0.381)	(0.110)	(0.197)
		[0.000]	[-0.007]	[0.009]
College graduate and above	0.192	0.445	0.062	0.325
		(0.484)	(0.146)	(0.288)
		[0.001]	[0.005]	[0.010]
Wealth quartile [Quartile 1]	0.308			
Quartile 2	0.258	0.589	0.131	-0.096
		(0.449)	(0.117)	(0.183)
		[0.001]	[0.012]	[-0.003]
Quartile 3	0.237	0.517	0.279 **	-0.278
		(0.481)	(0.129)	(0.222)
		[0.000]	[0.027]	[-0.008]
Quartile 4	0.196	1.239 **	0.460 ***	0.207
		(0.540)	(0.143)	(0.246)
		[0.001]	[0.044]	[0.005]

Table 6—Continued

Variable	Mean	Self-employed at *t+2*	Retired at *t+2*	Not working at *t+2*
SS wealth at age 62 quartile [Quartile 1]	0.119			
Quartile 2	0.127	0.127	0.097	-0.480 *
		(0.642)	(0.169)	(0.284)
		[0.000]	[0.009]	[-0.013]
Quartile 3	0.127	0.178	0.194	-0.196
		(0.586)	(0.169)	(0.280)
		[0.000]	[0.018]	[-0.007]
Quartile 4	0.187	-0.499	0.245	-0.025
		(0.633)	(0.154)	(0.273)
		[-0.000]	[0.022]	[-0.002]
SS wealth at age 62 missing	0.440	0.542	0.288	-0.047
		(0.710)	(0.183)	(0.309)
		[0.001]	[0.026]	[-0.003]
Pension wealth at age 62 quartile [Quartile 1]	0.252			
Quartile 2	0.205	-0.221	0.236 **	-0.154
		(0.469)	(0.112)	(0.229)
		[-0.000]	[0.024]	[-0.006]
Quartile 3	0.201	-0.809	0.194	0.150
		(0.607)	(0.119)	(0.213)
		[-0.001]	[0.018]	[0.005]
Quartile 4	0.193	0.150	0.130	-0.733 **
		(0.551)	(0.133)	(0.305)
		[0.000]	[0.015]	[-0.018]
Pension wealth at age 62 quartile missing	0.149	-0.267	-0.323 *	0.096
		(0.462)	(0.180)	(0.241)
		[-0.000]	[-0.026]	[0.004]
Pension access [no pension]	0.331			
DC pension	0.108	-0.786	0.209	-0.563 *
		(0.550)	(0.152)	(0.330)
		[-0.001]	[0.023]	[-0.017]
DB pension	0.203	-2.260 ***	0.046	-0.330
		(0.843)	(0.141)	(0.276)
		[-0.002]	[0.006]	[-0.011]
DB and DC pension	0.126	-1.123 *	0.144	-0.387
		(0.668)	(0.152)	(0.303)
		[-0.002]	[0.015]	[-0.012]
Don’t know pension type	0.228	-0.983 **	0.103	-0.201
		(0.485)	(0.132)	(0.232)
		[-0.002]	[0.011]	[-0.007]
Ever received inheritance	0.226	-0.075	-0.136	-0.090
		(0.428)	(0.151)	(0.262)
		[-0.000]	[-0.012]	[-0.002]

Table 6—Continued

Variable	Mean	Self-employed at *t+2*	Retired at *t+2*	Not working at *t+2*
Health status [Good/Missing]	0.307			
Excellent or very good	0.567	-0.051	-0.084	-0.236
		(0.351)	(0.098)	(0.168)
		[-0.000]	[-0.007]	[-0.006]
Fair or poor	0.126	0.140	0.485 ***	0.527 ***
		(0.479)	(0.130)	(0.184)
		[0.000]	[0.052]	[0.018]
Health condition limits work	0.072	1.360 ***	0.347 **	0.527 **
		(0.406)	(0.148)	(0.213)
		[0.003]	[0.034]	[0.017]
Number of ADLs	0.040	-0.917	0.303 **	0.533 ***
		(0.784)	(0.151)	(0.194)
		[-0.000]	[0.000]	[0.000]
Health insur. [no employer HI or retiree only]	0.276			
Employer health insurance only	0.333	-0.719 *	-0.452 ***	-0.816 ***
		(0.386)	(0.125)	(0.182)
		[-0.001]	[-0.038]	[-0.026]
Employer and retiree health insurance	0.391	-1.164 **	-0.050	-0.597 ***
		(0.508)	(0.121)	(0.193)
		[-0.001]	[-0.002]	[-0.021]
Wage				
Log (hourly wage)	2.154	-0.161	-0.001	-0.303
		(0.417)	(0.106)	(0.190)
		[0.000]	[0.000]	[0.000]
Wage rate missing	0.080	-0.781	0.014	-0.969 **
		(1.237)	(0.300)	(0.495)
		[-0.001]	[0.004]	[-0.020]
Can reduce hours at work	0.254	0.509	-0.006	0.022
		(0.312)	(0.096)	(0.159)
		[0.001]	[-0.001]	[0.001]

Table 6—Continued

Variable	Mean	Self-employed at *t+2*	Retired at *t+2*	Not working at *t+2*
Occupation [Administrative support]	0.310			
Executive, administrative, managerial	0.132	1.154 **	-0.241 *	-0.114
		(0.477)	(0.138)	(0.248)
		[0.003]	[-0.022]	[-0.003]
Professional specialty	0.187	0.186	0.128	-0.845 ***
		(0.548)	(0.143)	(0.314)
		[0.000]	[0.017]	[-0.023]
Sales	0.064	0.123	0.211	-0.362
		(0.558)	(0.177)	(0.318)
		[0.000]	[0.025]	[-0.013]
Services	0.173	0.024	-0.208	-0.290
		(0.472)	(0.145)	(0.244)
		[0.000]	[-0.019]	[-0.009]
Farming, forestry, fisheries	0.002	-31.806 ***	-30.637 ***	0.373
		(0.947)	(0.662)	(0.789)
		[-0.001]	[-0.115]	[0.025]
Production, craft, repair, laborers	0.128	-1.099	-0.015	0.129
		(0.808)	(0.145)	(0.238)
		[-0.001]	[-0.002]	[0.005]
Job is physically demanding	0.354	0.294	0.061	0.205
		(0.332)	(0.091)	(0.158)
		[0.000]	[0.005]	[0.006]
Prob. of working full time after age 62 [50]	0.144			
0 percent	0.232	1.127 **	0.912 ***	-0.230
		(0.529)	(0.137)	(0.218)
		[0.001]	[0.108]	[-0.011]
1 to 49 percent	0.148	0.658	0.405 ***	0.060
		(0.503)	(0.158)	(0.224)
		[0.001]	[0.038]	[0.001]
51 to 99 percent	0.170	-0.083	-0.218	-0.454 *
		(0.616)	(0.171)	(0.236)
		[-0.000]	[-0.015]	[-0.013]
100 percent	0.207	0.330	-0.412 **	-0.457 **
		(0.556)	(0.164)	(0.230)
		[0.000]	[-0.027]	[-0.013]
Missing	0.099	1.211 *	0.525 **	-0.010
		(0.714)	(0.228)	(0.406)
		[0.001]	[0.053]	[-0.003]

Table 6—Continued

Variable	Mean	Self-employed at *t+2*	Retired at *t+2*	Not working at *t+2*
Year at time *t* [1992]	0.326			
1994	0.273	0.071	0.079	0.028
		(0.390)	(0.119)	(0.166)
		[0.000]	[0.007]	[0.001]
1996	0.223	-0.231	0.135	-0.265
		(0.468)	(0.124)	(0.212)
		[-0.000]	[0.014]	[-0.008]
1998	0.178	0.373	0.142	-0.069
		(0.494)	(0.136)	(0.243)
		[0.000]	[0.014]	[-0.003]
Spouse characteristics				
Spouse age group [56 to 61]	0.257			
51 to 55	0.134	0.228	-0.300 *	0.106
		(0.581)	(0.180)	(0.235)
		[0.000]	[-0.027]	[0.003]
62 and above	0.200	0.682	0.347 **	-0.207
		(0.581)	(0.151)	(0.291)
		[0.000]	[0.041]	[-0.005]
Spouse education [High sch. graduate/GED]	0.202			
High school drop-out	0.133	-0.430	-0.016	-0.050
		(0.636)	(0.146)	(0.254)
		[-0.104]	[0.010]	[0.002]
Some college	0.115	-0.131	0.106	0.219
		(0.580)	(0.142)	(0.267)
		[-0.036]	[0.008]	[0.003]
College graduate and above	0.135	-1.000	-0.014	0.110
		(0.625)	(0.157)	(0.307)
		[-0.245]	[0.025]	[0.008]
Spouse has a pension	0.219	-0.693	0.001	-0.037
		(0.594)	(0.150)	(0.258)
		[-0.001]	[0.000]	[-0.001]
Spouse ever received inheritance	0.131	-0.380	0.049	-0.465
		(0.755)	(0.189)	(0.369)
		[-0.000]	[0.006]	[-0.012]

Table 6—Continued

Variable	Mean	Self-employed at *t+2*	Retired at *t+2*	Not working at *t+2*
Spouse health status [Good]	0.176			
Excellent or very good	0.257	-0.321	0.062	0.176
		(0.474)	(0.124)	(0.249)
		[-0.001]	[0.006]	[0.004]
Fair or poor	0.118	-1.050 *	-0.164	-0.081
		(0.588)	(0.160)	(0.262)
		[-0.001]	[-0.016]	[-0.001]
Spouse health status missing	0.448	-0.751	-0.281	0.510
		(0.657)	(0.240)	(0.330)
		[-0.001]	[-0.028]	[0.016]
Spouse health condition limits work	0.126	-0.414	0.374 ***	0.346
		(0.564)	(0.142)	(0.253)
		[-0.000]	[0.039]	[0.010]
Spouse number of ADLs	0.063	0.372	-0.054	-0.260
		(0.230)	(0.117)	(0.207)
		[0.000]	[0.000]	[0.000]
Spouse health insurance [no employer HI]	0.634			
Employer health insurance only	0.178	0.490	0.043	0.130
		(0.564)	(0.136)	(0.255)
		[0.001]	[0.003]	[0.004]
Retiree health insurance only	0.170	-0.631	0.195	-0.448 *
		(0.581)	(0.143)	(0.243)
		[-0.001]	[0.021]	[-0.012]
Employer and retiree health insurance	0.019	-29.169 ***	0.303	-0.311
		(0.720)	(0.321)	(0.756)
		[-0.002]	[0.033]	[-0.009]
Spouse works	0.399	-18.284 ***	-0.088	0.271
		(1.815)	(0.553)	(0.668)
		[-0.615]	[0.059]	[0.026]
Spouse wage				
Log (hourly wage)	0.904	-0.069	0.169	0.256
		(0.451)	(0.113)	(0.170)
		[0.000]	[0.000]	[0.000]
Wage rate missing	0.646	-0.183	0.463	0.672
		(1.331)	(0.337)	(0.501)
		[-0.000]	[0.040]	[0.017]
Spouse white-collar occupation	0.189	1.328 **	-0.074	-0.111
		(0.637)	(0.163)	(0.270)
		[0.002]	[-0.007]	[-0.003]

Table 6—Continued

Variable	Mean	Self-employed at *t+2*	Retired at *t+2*	Not working at *t+2*
Spouse job is physically demanding	0.150	1.417 ***	-0.167	-0.152
		(0.515)	(0.156)	(0.262)
		[0.059]	[-0.007]	[-0.002]
Spouse prob. of working FT after 62 [50]	0.031			
0 percent	0.078	0.400	0.045	0.062
		(1.297)	(0.292)	(0.472)
		[0.001]	[0.005]	[0.001]
1 to 49 percent	0.052	-0.202	-0.118	0.510
		(1.569)	(0.328)	(0.465)
		[-0.000]	[-0.015]	[0.017]
51 to 99 percent	0.059	1.197	-0.691 **	0.144
		(1.152)	(0.351)	(0.479)
		[0.003]	[-0.062]	[0.006]
100 percent	0.077	0.948	-0.587 *	0.036
		(1.096)	(0.316)	(0.466)
		[0.002]	[-0.054]	[0.002]
Missing	0.702	-0.252	-0.204	0.187
		(1.034)	(0.295)	(0.479)
		[-0.000]	[-0.022]	[0.006]

NOTES: Sample is full-time wage and salary workers age 51 to 67 at time *t*. N=5,463. Coefficients not shown for the intercept and indicator variables for missing values for race, marital status, pension access, occupation, job physically demanding, spouse age, spouse education, and spouse job physically demanding which affect less than 1 percent of the sample, Numbers in parentheses are Huber standard errors. Numbers in brackets are marginal probabilities. Statistically significant at the ***1 percent, **5 percent, and *10 percent level.

SOURCE: Authors' calculations using HRS 1992-2000.

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