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Abstract

Aggregate data reveal a sizable increase in labor force participation rates since 2000 among workers on the cusp of retirement, reverting back to levels for older men not seen since the 1970s. These aggregate numbers are useful in that they document overall trends, but they lack the ability to identify the reasons behind workers' decisions. The Health and Retirement Study (HRS) spans the last dozen years from 1992 to 2004, includes two cohorts of retirees, and provides micro-level data regarding these recent trends. Moreover, the HRS contains information on older Americans and the types of jobs they are taking (full-time versus part-time, self-employed versus wage-and-salary, low-paying versus high-paying, blue collar versus white collar, etc.). This study capitalizes on the richness of the HRS data and explores labor force determinants and outcomes of older Americans, with an emphasis on retirees' choices in recent years. We present a cross-sectional and longitudinal description of the financial, health, and employment situation of older Americans. We then explore retirement determinants using a multinomial approach to model gradual retirement and a two-step approach to model the work-leisure and hours intensity decisions of older workers. Evidence suggests that the majority of older Americans retire gradually, in stages, and that younger retirees continue to respond to financial incentives just as their predecessors did. In addition, recent macro-level changes appear to have blurred the distinction between younger and middle-aged retirees.

I. Introduction

The 2001 recession was unique in that older workers experienced increases in labor force participation rates while other workers' rates followed the typical pattern during a recession and declined. Older workers' choices during this recessionary period are even more notable since their decisions reversed a broader trend of ever-earlier retirements that bottomed out in the mid-80s and held steady through the 90s. Another key feature of today's retirees is the way they exit the labor force. Traditional one-time, permanent retirements appear to be the exception rather than the rule, as older workers increasingly change jobs later in life or reenter the labor force after "retiring." Why are so many of today's older Americans breaking from the traditional retirement pattern?

The answer to the pro-work mindset of many of today's older Americans is likely a reflection of many factors, on both the supply and the demand sides. People are living longer, healthier lives, and have higher levels of formal education compared to earlier generations. Jobs are also less physically demanding than in the past, as the economy shifts away from manufacturing occupations towards service ones. At the same time, a strong labor market, like that of the 1990s and mid-2000s, provides older workers with many job opportunities. These changes have allowed older workers to remain productive well beyond their late 50s and early 60s.

Many of the financial incentives surrounding retirement have changed as well. Today's retirees have experienced a general shift towards a "do-it-yourself" approach to retirement. Defined-benefit pension plans, which offer a set annuity payment upon retirement, are less common in today's private sector and many existing defined-benefit plans are being converted to cash balance plans or replaced with defined-contribution plans managed by the worker. Social Security, the bedrock of financial security late in life, is facing financial strain and will likely provide lower replacement rates than in the past. Finally, private saving, the third pillar of retirement income, has always been directed by the individual. Thus, workers are now in charge of their retirement finances more so than at any time in the post-war era.

While these long-term trends will undoubtedly impact retirement patterns in the long run, they do not, in and of themselves, explain why labor force participation rates have jumped so abruptly in recent years. For insight here we examine how long-term

changes have made retirees vulnerable to short-run market forces. Perhaps it took a shock in the financial markets, such as the 2001 recession, to uncover the impact of the "do-it-yourself" approach. Seen this way, the key to understanding workers' retirement decisions in recent years is to understand the interaction between long-run incentives and short-term market fluctuations. This interaction may explain why the early retirement trend subsided in the mid-80s and 90s and why older workers returned to the labor force in the early part of this decade. The interaction may also explain why the trend subsided somewhat in recent years as the economy improved.

Under this hypothesis, we expect the timing of retirement to be cyclical, as workers' expectations and plans are continuously updated in response to the changing state of financial markets. This is a fundamental shift from the past. Before, the timing of retirement was largely immune to changes in market conditions, as investment risk was borne by the federal government and an individual's employer. With the advent of 401(k)s and with the extension of Social Security's Normal Retirement Age (NRA) from 65 to 66, and eventually to 67, a worker's retirement benefit now depends on the current state of the market. One possible implication, going forward, is that more older workers can be expected to reenter the labor market during a recession, and then retreat from the labor force during a boom.

Aggregate data on work force participation are consistent with this explanation; however, micro-level data are required to test this hypothesis. We analyze data from the Health and Retirement Study (HRS), a nationally-representative dataset of two cohorts of older Americans (Juster and Suzman, 1995). The first group of respondents, the "HRS Core," was born between 1931 and 1941 and was 51 to 61 years old in 1992, the first year data were collected. The second group, the "HRS War Babies," was born between 1942 and 1946 and was 51 to 56 years old in 1998, the year of their first interview. Both cohorts were interviewed every other year, so by 2004 twelve years of data were available for the first group and six years for the War Babies. Detailed information on demographics, health status, work history, income, wealth, and more are available for each respondent, making the HRS an ideal data set for this study.

This paper is structured as follows. Section II provides some background on retirement trends and exit patterns, with a focus on recent developments. Sections III, IV,

and V outline the estimation strategy for how we plan to identify the key determinants of retirement outcomes, especially in recent years, and the data we use for our analyses. We present our results in Section VI and comment on the implications of our research. We conclude that future retirees are likely to be much more flexible with respect to their eventual labor force exit compared to those in the past.

II. Background

Labor force participation rates among older workers have risen in recent years, both among men, whose rates were relatively constant from the mid-1980s through much of the 1990s, and among women, whose rates have increased steadily since the mid-1980s. Men 60 to 64 years old experienced an increase in labor force participation from 53 percent in 1995 to 57 percent in 2004, a 7 percent increase over the decade. Men aged 65 to 69 exhibited an even larger increase over the same time period, from 27 percent to 33 percent. The story is similar for women, but begins at a younger age. Women aged 55 to 59 had an increase in labor force participation from 60 percent to 65 percent, while those aged 60 to 64 and aged 65 to 69 experienced increases of 18 percent and 29 percent, respectively (U.S. Bureau of Labor Statistics, 2005; Purcell, 2005).

Several recent studies have noted this trend, as well as the diverse patterns by which older workers exit the labor force. Cahill, Giandrea, and Quinn (2006), for example, examined transitions from career jobs and found that more than one-half of older workers utilized bridge jobs prior to complete labor force withdrawal. Moreover, not only were bridge jobs common among older cohorts of workers, but diverse patterns were even seen among the youngest of retirees (i.e., those age 57-62 in 2004). Maestas (2004), Quinn (1999), and Ruhm (1990) have also examined the transition that workers take when exiting the labor force. They have described an increasingly "blurred" (Mutchler, Burr, Pienta, and Massagli, 1997) retirement process where employees gradually transition from career jobs to a retirement that sometimes includes reentry to the labor market before a permanent exit.

Research and anecdotal evidence provide insight into the key determinants of these trends. The retirement literature has shown that demographic and socio-economic characteristics matter, as do financial incentives (e.g., Gruber and Madrian, 1995;

Mutchler, Burr, Pienta and Massagli, 1997; Quinn, 1999; Coile 2003). More recently, the importance of other factors has been examined. For example, the long-term shift from defined-benefit pension plans that provide a regular benefit amount in retirement to employee-controlled defined-contribution plans has been shown to influence the timing of retirement (Munnell, Cahill, and Jivan, 2003).

Cyclical economy-wide factors, such as stock market performance, have recently been proposed as an important determinant of labor force participation. Eschtruth and Gemus (2002) outlined the way older workers increased participation in the labor force during the most recent recession. Using a micro-level approach to the same topic, Coile and Levine (2004) investigated the relationship between changes in stock market valuations and retirement activity using the HRS, the Current Population Survey (CPS), and the Survey of Consumer Finances (SCF). They estimated reduced form equations to determine whether the growth of stock market values in the late 1990s and the subsequent decrease in the early 2000s impacted retirement behavior of near-retirement workers. Coile and Levine found that rates of retirement are not significantly different between older workers with larger stock portfolios and those without.

Gardner and Orszag (2003) also took a micro-level approach based on a survey of almost 4,500 individuals aged 50-64 in the U.K. and found that one-quarter planned to delay their expected retirement date because of the stock market decline of 2000. Coronado and Perozek (2003) used HRS data to investigate the effects of wealth on leisure decisions later in life. They found that the unexpected stock market gains led workers who held stocks to retire, on average, about seven months earlier than non-stockholders.

This paper follows the micro-level research and concentrates on the determinants of the labor market participation decisions of older workers using two cohorts of retirees spanning 1992 to 2004.

III. Three Period Model of Retirement

The decision to take on a bridge job can be presented graphically. Figure 1 outlines a three period model of retirement that depicts the path from full-time career

(FTC) employment to complete labor force withdrawal as a function of the choice variables of older workers.

The first period, from t_0 to t_1, represents the FTC job. At time t_1 the worker leaves the FTC job and chooses between a bridge job and retirement. If the individual stays in the labor force, he or she chooses how long to remain working, t_2-t_1, and the number of hours to work per year, H. The bridge job may require fewer, the same, or even more hours than the FTC job. If a worker leaves a FTC job for complete retirement, then $H = 0$ and $t_1 = t_2$. From time t_2 forward the individual is fully retired and does not work. The set of factors that affect the timing of the retirement decision are similar to those that influence a worker's choice of when to leave his or her FTC job (Quinn, 1999).

We use this model as a guide to examine the labor force transitions of older workers.

IV. Methodology

The purpose of this analysis is to assess how the shift towards a do-it-yourself approach to retirement has altered decisions regarding the timing of labor force withdrawal, bridge job behavior, and labor force reentry. We hypothesize that workers are now more sensitive to short-term market conditions, as the size of potential retirees' non-annuitized retirement nest eggs rises and falls with financial markets. To test this hypothesis, we first make a distinction between two underlying causes for differences in outcomes, changes in determinants and changes in impacts. As retirement inputs change, such as the switch from defined-benefit to defined-contribution plans over the past two decades, retirement outcomes change. The underlying cause of the change (i.e., inputs) does not necessarily imply a change in retirement decision making. A more subtle change, one that is addressed in part here by examining cohort differences, is whether known determinants of retirement now influence retirement decisions differently from in the past.

Our sample consists of two cohorts of retirees, the HRS Core (born between 1931 and 1941) and the HRS War Babies (born between 1942 and 1947), with multiple data points over time within each cohort. We model the retirement decision in three ways, each making use of the longitudinal nature of the HRS and each providing a different

insight into the choice between work and retirement later in life. The first model is based on the multinomial regression model presented in Cahill, Giandrea, and Quinn (2006) in which gradual retirement is examined among a set of respondents who were on a FTC job at the time of the first interview. Gradual retirement from full-time career employment is measured using a three-way indicator of labor force withdrawal, equal to zero (still on a full-time career job), one (transitioned to a bridge job), or two (direct exit from the labor force). The model is structured as follows:

$$R3^{*}_{it} = \alpha + \beta_1 X_i + \beta_2 X_{it-1} + \beta_3 RET_{it-1} + \varepsilon_{it} \qquad (1)$$

$R3^{*}_{it}$ is the latent variable that determines the observed choice and $R3_{it}$ indicates the actual outcome, equal to zero, one, or two, as noted above. X_i and X_{it} represent, respectively, time invariant and time-varying vectors of characteristics believed to be significant determinants of the retirement process, such as age, health status, marriage status, and other demographic characteristics. RET_{it} is a set of retirement incentive variables associated with private pensions and health insurance plans.

The model differs from the one presented in Cahill et al. mainly because of the time at which the independent variables are measured. Instead of using a wave-one baseline measure, time-varying determinants are defined as of the time period just prior to the transition. For example, if a respondent in the HRS Core sample moves from a FTC job to a bridge job in the fourth wave (1998), the independent variables are measured as of the third wave (1996). This prior-to-transition designation is an improvement over the existing model specification because changes in status since the first interview are incorporated into the model, which are particularly important for the Core sample given the potential for a 12-year gap between the initial interview and first transition. We estimate equation one separately for the Core and War Baby samples. This allows us to examine the extent to which differences exist by cohort.

The multinomial logistic model provides an intuitive way of examining gradual retirement. Another way to model workforce decisions is to make use of the fact that each respondent contributes multiple observations, one from each survey. This approach allows us to control for individual-specific factors and time effects, both of which are not possible in the framework of the multinomial regression model. Fixed effects can now be

identified because respondents contribute multiple observations. And time effects can be identified because the date of transition is known in each wave (previously, the date of transition was not known for all respondents still on a FTC job in 2004).

Using person-year observations, we model retirement as a series of decisions. The respondent first decides whether to stay working and, if so, whether to remain on a FTC job or to transition to a bridge job. He or she then decides how many hours to work. For the purposes of our analysis, we examine hours worked conditional on being on a FTC job or a bridge job at the time of the interview. That is, we do not model job type and hours worked as being jointly determined.

We begin by pooling the data for each cohort and transforming the dataset into one with person-year observations. We then model the work-leisure decision later in life among those with work experience since age 49 as follows:

$$R_{it}^{*} = \alpha + \beta_1 X_i + \beta_2 X_{it} + \beta_3 RET_{it} + \beta_4 WarBaby_i + \beta_5 Y_t + \beta_6 (WarBaby_i * Y_t) + v_i + \varepsilon_{it} \qquad (2)$$

Observations are person-year, with *i* indicating individual and *t* indicating time. The latent variable, R_{it}^{*}, determines the observed choice. R_{it} indicates the actual outcome and is equal to 1 if individual *i* is working at time *t*, and is equal to zero otherwise. X_i, X_{it}, and RET_{it} are as defined above for model one. $WarBaby_i$ is a binary variable equal to one if the individual respondent is among the War Babies cohort. Y_t is a series of year indicator variables (or, alternatively, macro-economic measures, such as the unemployment rate) that are intended to account for economy-wide factors. The error term consists of two parts, an individual-specific component, v_i, assumed to be uncorrelated with the set of explanatory variables, and a white noise error component, ε_{it}.

The equation includes interaction terms between the War Baby indicator and the time dummies, which is a key interest for this study. The interaction terms examine the extent to which the work decisions of the War Babies differed systematically by year from those of the Core. We hypothesize that the Core sample, those on the cusp of retirement, might have been more vulnerable to the macro events, such as the stock market decline (i.e., $\beta_6 \neq 0$ implies cross-cohort differences). We estimate the model in

three ways, using a linear probability model with and without fixed effects, and using a logistic model.

Given the decision to remain working, we then examine hours worked on the full-time career job (i.e., prior to transition) and hours worked on the bridge job (i.e., post transition) among those who have had a FTC job since age 49. The hours equation is as follows:

$$H_{it} = \alpha + \beta_1 X_i + \beta_2 X_{it} + \beta_3 RET_{it} + \beta_4 WarBaby_i + \beta_5 Y_t + \beta_6 (WarBaby_i * Y_t) + v_i + \varepsilon_{it} \quad (3)$$

The dependent variable, H_{it}, is a measure of total hours worked, conditional on either working on an FTC job or a bridge job. Other variables are as defined above. Separate equations are estimated for FTC hours and for bridge job hours, with time indicators measured as of the current wave of HRS data; a respondent's hours decision in any given wave is based on the incentives that exist at that time and the respondent's choices made up to that point. The interaction terms, as in equation two above, allow us to test whether cohort and time differences exist with respect to the work and work-intensity decision, respectively.

V. Data

The Health and Retirement Study (HRS) is a nationally-representative, longitudinal survey of older Americans that began in 1992. The survey now spans the dozen years from 1992 to 2004, includes two cohorts of retirees, those born between 1931 and 1941 ("HRS Core") and those born between 1942 and 1946 ("HRS War Babies"), among others, and provides micro-level information regarding labor force decisions. Moreover, the HRS provides detailed information on the demographic and economic characteristics of older Americans and the types of jobs they hold (full-time versus part-time, self-employed versus wage-and-salary, low-paying versus high-paying, blue collar versus white collar, etc.).

Table 1 shows that the original HRS Core set of respondents consisted of about 12,600 persons from approximately 7,600 households with respondents 51 to 61 years old in 1992 (born between 1931 and 1941), and their spouses. Respondents were first

interviewed in 1992 and follow-up interviews have been conducted every two years. The Core was expanded dramatically in 1998 (wave 4) when a new cohort, the HRS War Babies, was added to the sample. The War Babies were born between 1942 and 1947 (age 51 to 56 in 1998). Like the core HRS sample, the War Babies are interviewed every two years.

This study analyzes the respondents from the Core, interviewed every two years from 1992 to 2004 (waves 1-7), and about 2,500 War Babies, interviewed every two years from 1998 to 2004 (waves 4-7). Attrition across waves ranged from 3 to 10 percent, so that after six years, about 85 percent of the Core sample and 89 percent of the War Babies remained in the sample. After twelve years, about 75 percent of the Core sample remained.

This paper focuses on labor force exit and retirement patterns, and we therefore exclude respondents with no work experience after age 49. As shown in Table 1, the large majority of both HRS men and women do indeed have work experience later in life. Just over 90% of men have worked since age 49 in both the Core and the War Babies samples, 5,344 and 1,122, respectively. Work experience is somewhat lower among women, although the gap is narrower among the War Babies with 5,196 and 1,159 women with work experience after age 49 among the Core and War Babies, respectively.

For the hours equation, we make an additional restriction based on whether these HRS respondents had a FTC job since age 49. The longitudinal nature of the HRS allows us to do this, since the questionnaire from the initial interview asks about a respondent's current job and all previous jobs that have lasted five years or more. If a respondent is not working at the time of the wave one interview, he or she is asked about the most recent job held, if any. Information on short-term jobs in the past lasting less than five years is not available, unless the respondent is not working at the time of the first interview and tenure on the last job held is shorter than five years. For the purposes of this paper, we define a full-time career (FTC) job as one that requires at least 1600 hours per year ("full time") and that lasts ten or more years ("career"). Therefore, a bridge job is employment following a FTC job that does not meet these two requirements.

One concern with this methodology, especially among the War Babies, is that younger respondents might not have enough tenure in 2004 for a job to be considered a

career job, even though the respondent may continue working and increase tenure. In some instances, these jobs will in fact turn out to be career jobs if the individual remains on the job for ten years. When subsequent waves do not cover work status through age 62, or when a respondent does not participate in subsequent waves, we assume that the respondent would have worked on the job until age 62. This assumption results in conservative estimates of the number of bridge jobs observed since a portion of these individuals may indeed leave their jobs before age 62.

We find that over 70% of males in both cohorts had a FTC job since age 49. This yields a sample of 4,280 men from the Core and 890 men from the War Babies cohort. About 45 percent of the Core women had a FTC job since age 49, compared to about 51% of the War Baby women. This yields a sample of 3,082 Core and 675 War Baby women. Some of our analyses require the sample to be restricted to those on FTC jobs at the time of the first interview. Among the Core, 3,057 men and 2,513 women were on a FTC job in 1992. For the War Babies, 843 men and 664 women were on a FTC job in 1998. This represents more than half (two thirds) of the males and about one third (one half) of the females in the initial Core (War Babies) survey.

VI. Results

Retirement Outcomes

The two outcomes of interest are work status and the prevalence of bridge jobs. Each of these outcomes is examined over time, from 1992 through 2004, and by cohort, defined as the HRS Core and the HRS War Babies. For one of our analyses, we split the Core sample into two groups, those aged 51 to 56 in 1992 and those aged 57 to 61 in 1992. This split allows us to make analogous comparisons between the War Babies and the younger group within the Core, because the two groups of retirees are the same age at the time of the first interview.

Work status in each survey year for each of these three groups of workers is shown in Figures 3a (men) and 3b (women). Not surprisingly, older retirees are less likely to be working each year. The relevant comparison, however, is how each of the cohorts compare over time. The work status of the younger Core group of men appears to resemble that of the War Babies in 1998, with a participation rate of nearly 90 percent

at ages 51 to 56. Six years later, about three quarters of each group is still working. Among men, it does not appear as though there are cohort differences with respect to work status.

The story is different among women, although not dramatically so. More women in the War Babies cohort were working at the time of the first interview compared to the younger Core cohort. The difference continued six years later, and has grown slightly. Perhaps more interestingly, the older Core women had a rapid decline in work status in the first six years of the survey, which then leveled off and remained fairly stable between 2002 and 2004. These descriptive statistics for the older Core women provide some evidence that cohort differences and year effects may be important when examining work status in the pooled sample.

The second outcome of interest focuses on the way older workers exit the labor force. We measure gradual exits from the labor force using the bridge job concept defined earlier. Table 2 describes bridge job prevalence as of 2004, stratified by work status and gender. By 2004 about 50 percent of Core men were either currently working on a bridge job or were currently not working, but had worked on a bridge job prior to exiting the labor force. A similar percentage is observed among the women. A non-trivial portion of both men and women were still working on a FTC job (13 and 17 percent, respectively), so the eventual incidence of bridge job behavior will be even higher. If we assume those still on FTC jobs will leave their jobs in a way resembling those who have already left, then about 65 percent, or two-thirds of men and women with FTC jobs in their work history, will have taken on a bridge job prior to retiring.

The War Babies were much more likely to still be on an FTC job in 2004, not surprisingly since they are six years younger than the youngest of the Core sample. When we examine the bridge job behavior among the War Babies who left their FTC job, we see that a similar percentage as the Core, and even slightly more, take on bridge jobs (between 66 and 69 percent).

Taken together, a comparison of the HRS Core and the HRS War Babies shows that, for the most part, the two groups are alike with respect to their work status and bridge job behavior. Yet these two groups likely faced different retirement incentives as

they aged, and the way they responded (or did not respond) to these financial incentives is of interest. With this thought in mind we discuss the determinants of retirement.

The Determinants of Retirement

The retirement literature has identified key demographic, socio-economic, and financial retirement incentives that influence the retirement decision. In this section, we explore how the two outcome variables of interest, work status and bridge job behavior, compare with respect to these predictors by cohort and by gender. We examine work status and hours worked among all respondents, and bridge job status among those who were on a full-time career job as of the first interview.

Tables 3a and 3b show (for Core and War Babies samples, respectively) that 38 percent of the Core men and 76 percent of the male War Babies were still working in 2004. Among those with FTC jobs in wave one, about 16 percent of Core men were still on that FTC job in 2004 and, among those who left, about 55 percent had taken a bridge job. More than half of the War Babies with FTC jobs at the time of the first interview were still on the FTC job, and about two-thirds of those who left took a bridge job.

Not surprisingly, men were more likely to be working in 2004 if they were younger, reported being in better health, or had dependent children. Bridge job status was more common among younger retirees who moved off of a FTC job for both the Core group and War Babies. Bridge jobs were also more common among those who reported better health status, and those who had a college degree. So these determinants appear to be influencing the Core and War Babies in similar ways.

The general story appears to be the same for women, albeit at different levels, and with cross-cohort differences more pronounced than among the men. For example, Core women with dependent children were 16 percentage points more likely to be working than the overall average (55 percent vs. 39 percent). Among the War Babies, women with dependent children were six percentage points less likely to be working in 2004 (65 percent vs. 71 percent). Core women with dependent children were also much more likely to take on a bridge job relative to the overall average than were those women with children in the War Babies cohort.

Differences by cohort and gender also exist with respect to economic characteristics, such as health insurance status, pension status, wage, and occupation. We discuss a few of these variables here, and refer to Table 3c (men) and Table 3d (women) for complete details. The impact of a defined-benefit pension plan is pronounced among Core males, as men with defined-benefit plans are less likely to be working and less likely to be on an FTC job in 2004 compared to the overall average. These pension plans often have specific incentives incorporated into their benefit structures that induce individuals to leave their jobs at specific early retirement ages, so the result is plausible. Interestingly, these impacts are not seen among the War Babies, perhaps because this group has not yet reached the pivotal ages for early retirement with these plans.

A second point that we highlight is a "u-shaped" relationship between both wage and bridge job status and occupational status and bridge job status. Those who are fairly well off (high wage or white collar, highly skilled) may take a bridge job to "try something new" or for a change – not out of necessity. Those who are struggling financially (low wage or blue collar, not highly skilled), however, may take on a bridge job because they have no other choice. And, finally, those in the middle might not take bridge jobs at all. The wage and occupational variables appear to support this relationship, as those with high wages or in white-collar, highly-skilled occupations and those with low wages or in blue-collar, not-highly-skilled occupations are the most likely to take on bridge jobs. The result holds for both cohorts, although the relationship is stronger among the Core sample.

The relationships discussed above hold for Core women as well, although as before, cross-cohort differences exist. Core women with defined-benefit pension plans are less likely to be working in 2004 compared to other workers, and the "u-shaped" relationship for occupational status holds as well. Female War Babies with defined-benefit plans are not less likely to be working and the "u-shaped" occupational status relationship looks instead like the left-hand side of a "u-shaped" curve. Bridge job status is lowest among those in blue-collar, not-highly-skilled positions, and highest among those in white-collar, highly-skilled occupations.

Multivariate Analysis

We now examine how the retirement determinants described above affect the outcome variables of interest in a multivariate setting. Overall, the multivariate analyses support the bivariate descriptive results, and provide some additional insights. We begin with the multinomial logistic regression model using those respondents who are on a full-time career job at the time of the first survey. We then examine the retirement process as a sequence of decisions, under the assumption that the work-leisure decision (whether to work) and the work intensity decision (how much to work) are separable.

Specification #1: Multinomial Regression Model of Gradual Retirement

The multinomial regression model examines first transitions from FTC job employment. We estimate separate models for the HRS Core and HRS War Babies cohorts, by gender, primarily because each cohort has a different observation period, twelve years for the Core and six years for the War Babies. One benefit of this approach is that coefficient values can be compared for each retirement determinant included in the regression.

We find that men are more likely to remain on their FTC job if they are younger, have a dependent child, have health insurance, have a higher wage, are self employed, or own a home (Table 4a). Men are less likely to remain on a FTC job if their spouse is in excellent or very good health and if they have a defined-benefit pension plan. Interestingly, being in excellent or very good health does not appear to be a statistically significant indicator of staying on a FTC job while spouse health status does matter. On the surface this result appears to run counter to some of our earlier findings, presented in Cahill et al. (2006). We suspect, however, that the discrepancy in findings is likely due to the difference in when the dependent variables are measured (i.e., prior to transition versus in wave one).

Bridge job status depends strongly on the respondent's health status, with those in excellent or very good health being more likely to take on a bridge job and those in fair or poor health being less likely to do so, compared to those who reported being in good health. Bridge job status is also more prevalent among those who are younger, married, college educated, and without health insurance, and less prevalent among those with a defined benefit plan or with lower wages.

The experience among the male War Babies is, overall, similar to their Core counterparts (shown in Table 4b), although some differences do exist. Health insurance portability, for example, is a significant predictor of leaving a FTC job among the male War Babies, and having any pension plan, either a defined-benefit or defined-contribution, has a positive influence on remaining at a FTC job. With respect to the bridge job transition, having a spouse in excellent or very good health increases the likelihood of taking on a bridge job among the male War Babies.

The factors that influence FTC and bridge job behavior among men also have similar effects among the Core and War Baby women (Tables 4c and 4d, respectively), although cross-cohort differences appear stronger for the women. Unlike the War Babies, Core women who have a spouse in excellent or very good health are less likely to remain working on their FTC job. Core women who are themselves in excellent or very good health are more likely to take on bridge jobs, too, a finding not seen for the War Babies. Another notable cross-cohort difference is that having a dependent child has a negative impact on staying on the FTC job for the Core women but a positive impact for the War Babies. In terms of economic characteristics, Core women who had a pension on their FTC job or who had non-portable health insurance were much less likely to take on a bridge job than those who did not. These factors did not have a statistically-significant impact among female War Babies.

Specification #2a: Logistic Regression Model of the Work-Leisure Decision

As described in the methodology section, the three-way retirement specification presented above can also be viewed as a two-step decision under the assumption that the work-leisure decision and work intensity decision are made sequentially (as opposed to jointly). This separation provides the flexibility necessary to utilize the longitudinal nature of the HRS, by pooling the Core and War Babies data and constructing a dataset of person-year observations. We restrict our sample to those who have had work experience since age 49 to ensure that the work-leisure decisions are for those who have had work experience later in life.

Tables 5a and 5b (men and women, respectively) present marginal effects from a logistic regression of work status in each wave within the pooled Core and War Babies

samples.[1] As expected, men are more likely to be working if they are younger and in excellent or very good health, if they have higher levels of formal education or dependent children, or if they are self employed or earn more per hour. Men are less likely to be working if they report being in fair or poor health. Men are also less likely to be working if their spouse is in excellent or very good health and more likely to be working if their spouse is in fair or poor health.

Older workers respond to key retirement incentives as well, as expected. If health insurance is portable in retirement, that is, if a worker does not lose his health insurance if he stops working at that job, then he is more likely to stop working, all else equal. Men with defined-benefit pension plans on their jobs are also less likely to be working, a result that is consistent with the age-specific early retirement incentives incorporated in such plans. Defined-contribution plans also have a negative influence on work relative to those without pension plans, although the impact of defined-contribution plans is much weaker than that of defined-benefit plans.

A focus of our analysis is the interaction between the War Babies indicator and macroeconomic factors. Overall, the War Babies are more likely to be working and, overall, the probably of remaining in the labor force declines consistently over the survey years. When these two variables are interacted, however, we find that the differences between the Core sample and the War Babies are insignificant in 2002 and in 2004. One explanation for this finding is that after the stock market collapse in 2000, Core respondents returned to the labor force and their work decisions started to resemble those of the War Babies. Said differently, the events that transpired since 2000 appear to have impacted the work-leisure decisions of the Core respondents differently than the War Babies.

The results of the analysis for the HRS female respondents are remarkably similar to those of the male sample. The fact that so many of the coefficients are similar across both equations implies that both the male and female samples could be combined. We keep them separate here, though, because of potential differences in work intensity on FTC jobs or bridge jobs, discussed below. We also highlight that the same time effects

[1] We also perform this estimation two additional ways, using a linear probability model and a linear probability model with fixed effects. We obtain similar results with all three methods.

are seen among the women as with the men. The work decisions of the Core females no longer differed from those of the War Babies after 2000, while they did differ before. Again, like their male counterparts, the work-leisure decisions of the female Core respondents relative to the War Babies appear to have been influenced by macroeconomic factors.

Specification #2b: OLS Model of Work Intensity

Given the decision to work, respondents then decide how much. This work intensity decision can be quite complicated, with decisions about job type and hours worked being jointly determined. For the purposes of our analysis, however, we simplify the decision and explore hours worked conditional on job type. Table 6a reports estimated coefficients from an OLS regression of hours worked per year conditional on being on a FTC job among the sample of male respondents who have had a FTC job since age 49. Like the work-leisure regressions, observations are person-year with time-dependent variables measured as of the survey year. Table 6b then examines hours worked conditional on being on a bridge job. Therefore, the results presented in Table 6a represent hours worked pre-transition and the results presented in Table 6b represent hours worked post transition. Tables 6c and 6d present pre- and post-transition hours, respectively, among female respondents.

Hours worked on the FTC job are higher among younger men and those in excellent or very good health, as expected. The order of magnitude is nontrivial as well, as men over age 65 worked 133 fewer hours per year than those under age 58. Men who were in excellent or very good health worked about 25 more per year than those in good health, and those in fair or poor health worked about 18 hours less. Hours worked were also positively associated with those having pension plans and in white collar occupations. Men with defined-contribution plans worked about 72 hours more per year prior to making a transition compared to those with no pension plan, and those with defined-benefit plans worked about 14 hours more. College graduates and those with portable health insurance worked fewer hours, all else equal. And, finally, while self employment status was consistently a strong predictor of working later in life, being self

employed had no statically significant impact on the number of hours worked prior to transition.

Work intensity after a transition exhibits similar patterns as those prior to transition, albeit with higher magnitudes and some notable exceptions. Spouse's health status impacts hours worked post transition. Men with a spouse in fair or poor health work on average about 60 more hours per year on their bridge jobs than otherwise similar males. Those with less than a high school degree also work more post transition, by about 85 hours per year. The largest sway in hours worked per year post transition, of 150 hours or more, was associated with health insurance status, pension status, and self employment status. Men with portable health insurance or no health insurance worked much fewer hours than those with non-portable health insurance, while those with pensions worked much more. Interestingly, while self employment status had no significant impact on hours worked prior to transition, those in self employment jobs worked more than 200 hours less than wage-and-salary men in their post-transition job. This finding may be indicative of men using self-employment as a method of reducing the number of hours worked as they transition to full retirement.

The War Baby indicator variable was not significantly different than zero either before or after transition. As before, we also interacted the War Baby indicator variable with the year dummies to determine whether any macroeconomic effects affected the War Babies differently than the Core respondents. Male War Babies still employed on for hours worked in post-transition employment resembled that for the work-leisure analysis – differences between the Core and War Babies vanished after the stock market decline.

Many of the main determinants of hours worked prior to transition among the male sample did not hold for the female sample. Most notably, perhaps, was that age and health status did not have a statistically significant impact on hours worked prior to transition. Several retirement incentives did, however, such as health insurance status and pension status, with patterns that resembled those of the male sample. Self employment was also not statistically significant. One finding of note was that while being married and having dependent children had a positive influence on hours worked

among men, albeit with the latter effect not being statistically significant, these two factors have a negative impact on hours worked among women.

The determinants of post-transition hours worked among women closely resemble those among the men, almost surprisingly so, especially with respect to age, college degree, health insurance and pension status, and self employment. A similar pattern with respect to HRS Core and HRS War Baby differences also holds for women. Some differences, however, warrant a mention. Statistical significance is not found for own health status and spouse health status or with not being a high school graduate. And, while being married is associated with more post-transition hours worked among men, the opposite is true for women.

VII. Conclusion

The advent of 401(k)s in the 1980s and their explosive growth since then, combined with an increase in Social Security's Normal Retirement Age and low savings rates, means that today's retirees are more vulnerable to short-run market forces than at any point in the post-war era. This shift means that retirement income security of many individuals is dependent upon the existing state of financial markets. Older workers may therefore need to re-think their long-term retirement plans in light of short-run market conditions. Going forward, the timing of retirement may be influenced by macroeconomic factors to the extent that these affect pensions and other financial variables.

In this paper, we examine retirement patterns from full-time career employment using a three-way outcome measure and we examine the work-leisure decision and work intensity later in life using data on two cohorts from the Health and Retirement Study. We find that work status across cohorts is consistent over time among men while some differences exist for women, with the younger cohorts being more likely to work longer. We also find that bridge job status continues to be common among younger retirees, as with older ones, with about two thirds of those making a transition from a full-time career job taking on a bridge job. While the descriptive findings suggest little that would imply stark time or cohort differences, the multivariate analysis shed some additional light on how the two cohorts compare.

Overall, cohort differences are more pronounced among women than men, although key determinants of retirement, such as age, health status, and health insurance and pension status, influence work decisions across all groups. We also find that cross-cohort differences in terms of work-leisure decisions and hours worked per year seem to have vanished after 2000, all else equal. One explanation, consistent with aggregate findings, is that the older HRS Core respondents altered their work decisions after the stock market collapse to the point where they now resemble their younger counterparts. It will be interesting to see how this plays out in the years to come. Another finding of note is that self employment may be used as a mechanism by which retirees gain work flexibility later in life. Those who are self employed are much more likely to be working in general, yet their number of hours worked on the FTC job resemble those in wage-and-salary employment. That changes on the bridge job, as those who are self employed work significantly fewer hours.

Placing these results in the context of the overarching theme of this study, we view the shift towards "do-it-yourself" retirement as a mixed bag. On the one hand, workers have more control of their retirement assets and, as shown in this paper and others, they respond to many of the financial incentives associated with retirement, by working longer and by taking on bridge jobs after FTC employment. This result implies that if retirement assets are less than expected upon retirement many older workers may remain active members of the labor force well into their late 60s and 70s. On the other hand, if work later in life is not an option, for health reasons or inflexible work options, some retirees' long-run well being will be vulnerable to short-term fluctuations in market conditions.

What is clear is that retirement incentives have changed and these changes will likely influence the retirement decisions of older workers for years to come. With pre-emptive action by today's middle-aged and younger workers, in the form of increased saving or more realistic work expectations, the timing of retirement may be less susceptible to short term macro-level influences.

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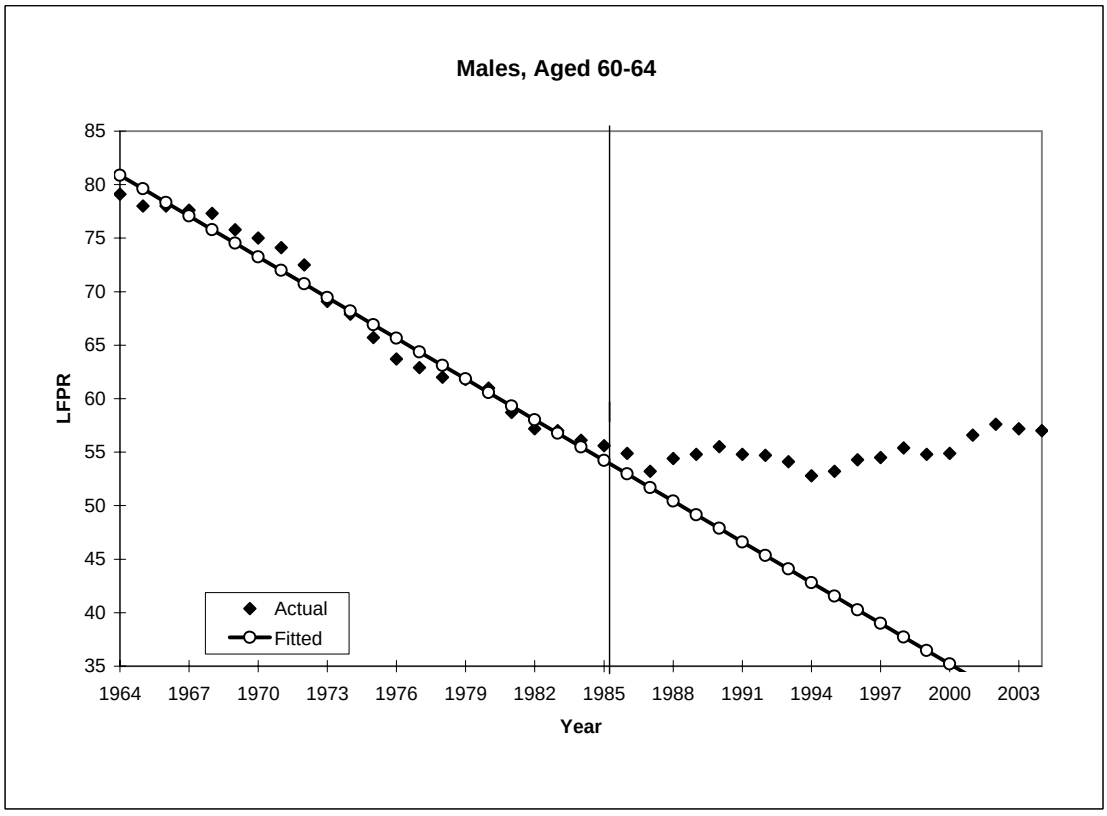
Figure 1a

Labor Force Participation Rates
Actual and Fitted Values, 1964-2004



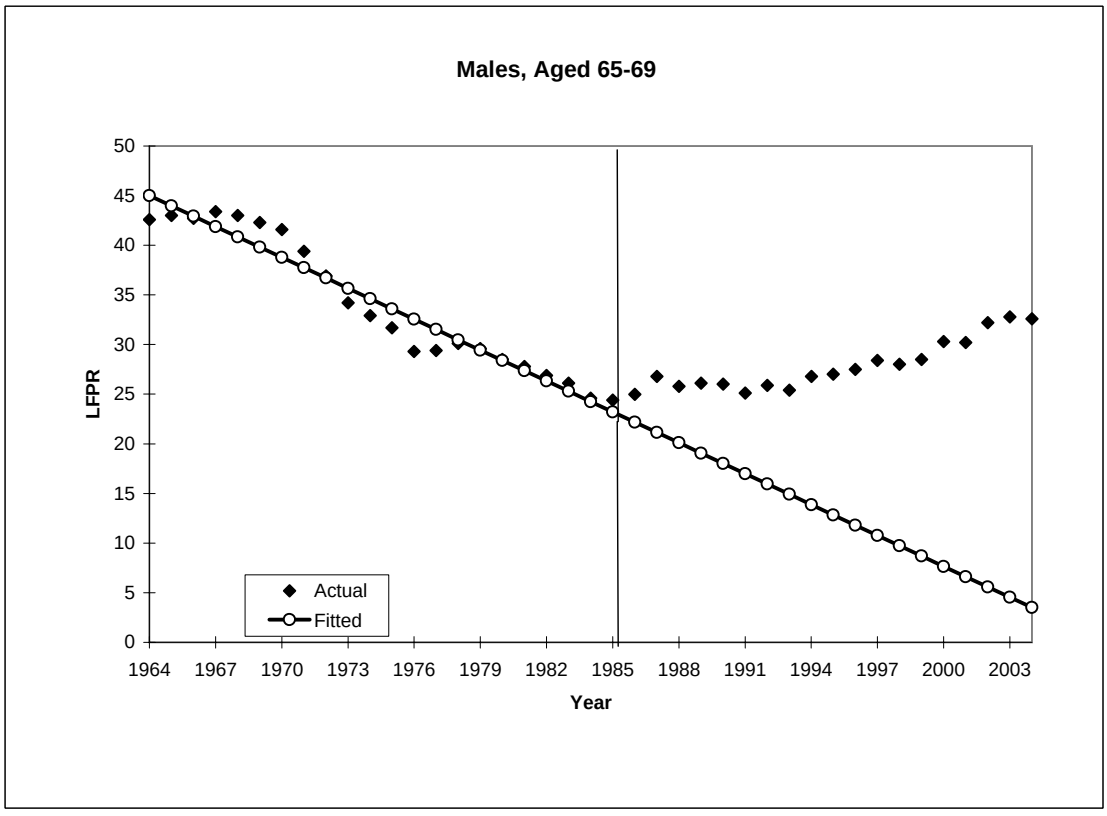


Figure 1b

Labor Force Participation Rates
Actual and Fitted Values, 1964-2004

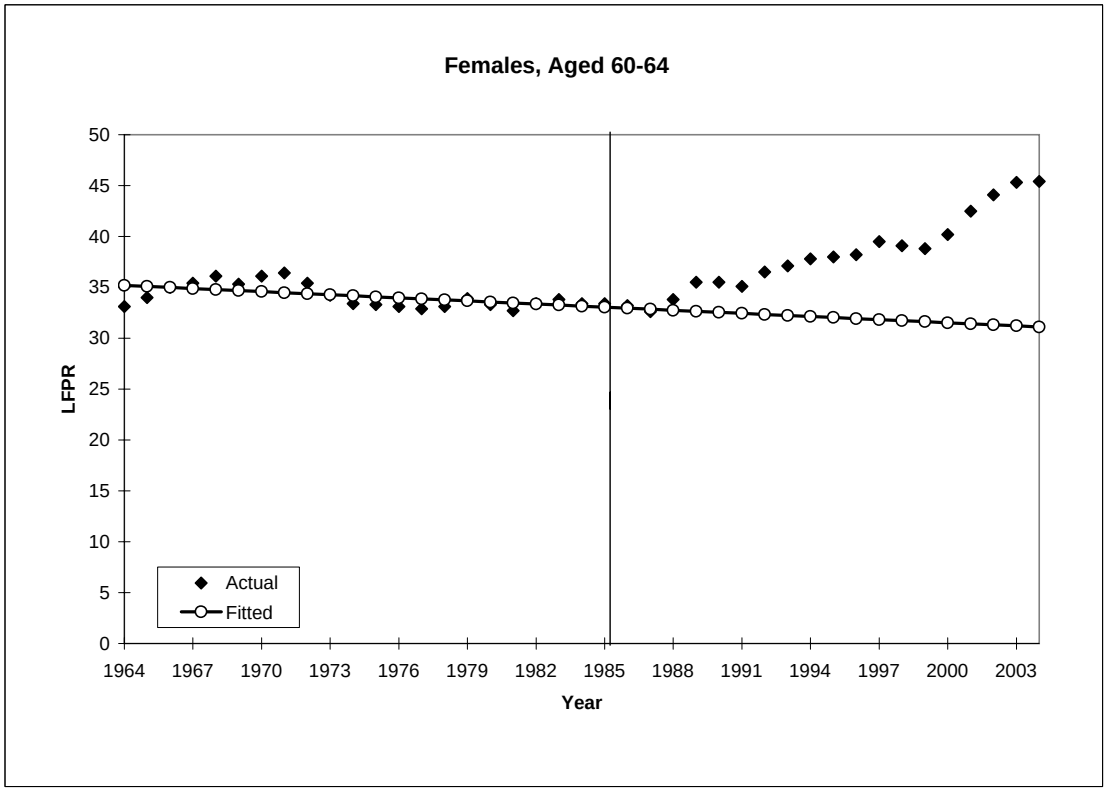


Figure 2: A Model of Retirement in Three Stages

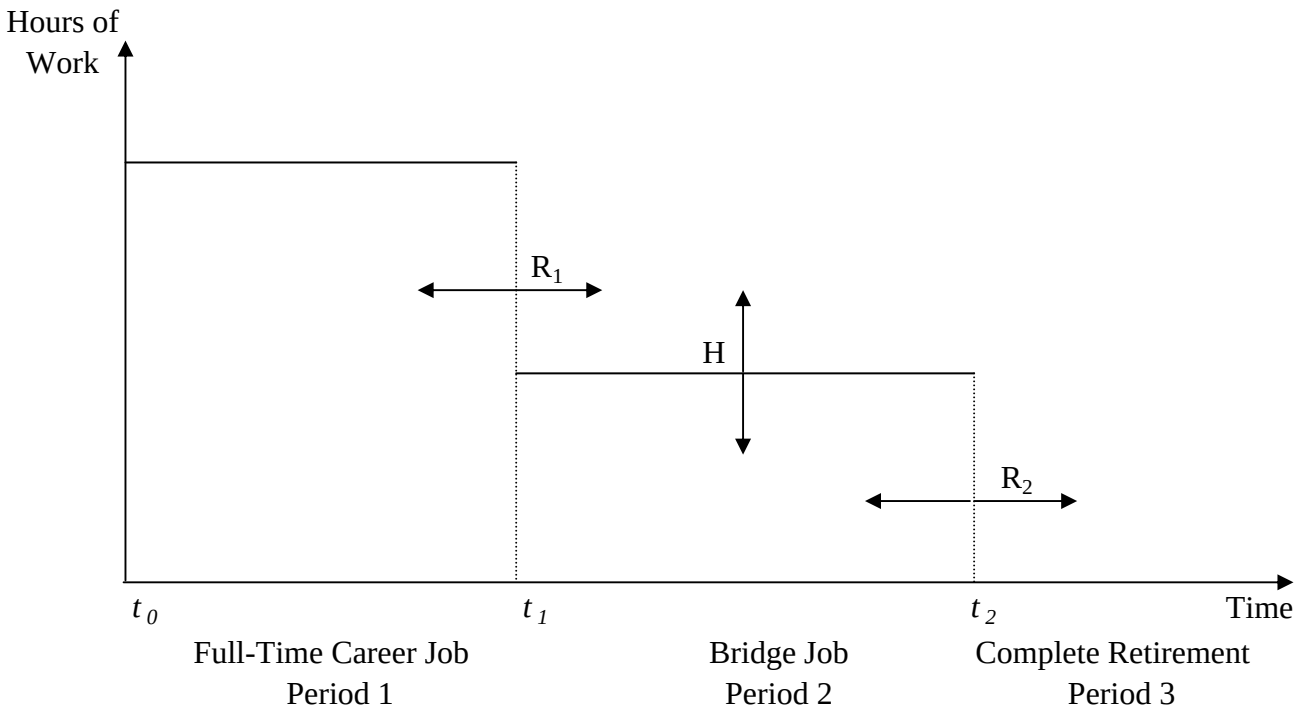


Figure 3a

Work Status, by Wave and Cohort
Men
1992 - 2004

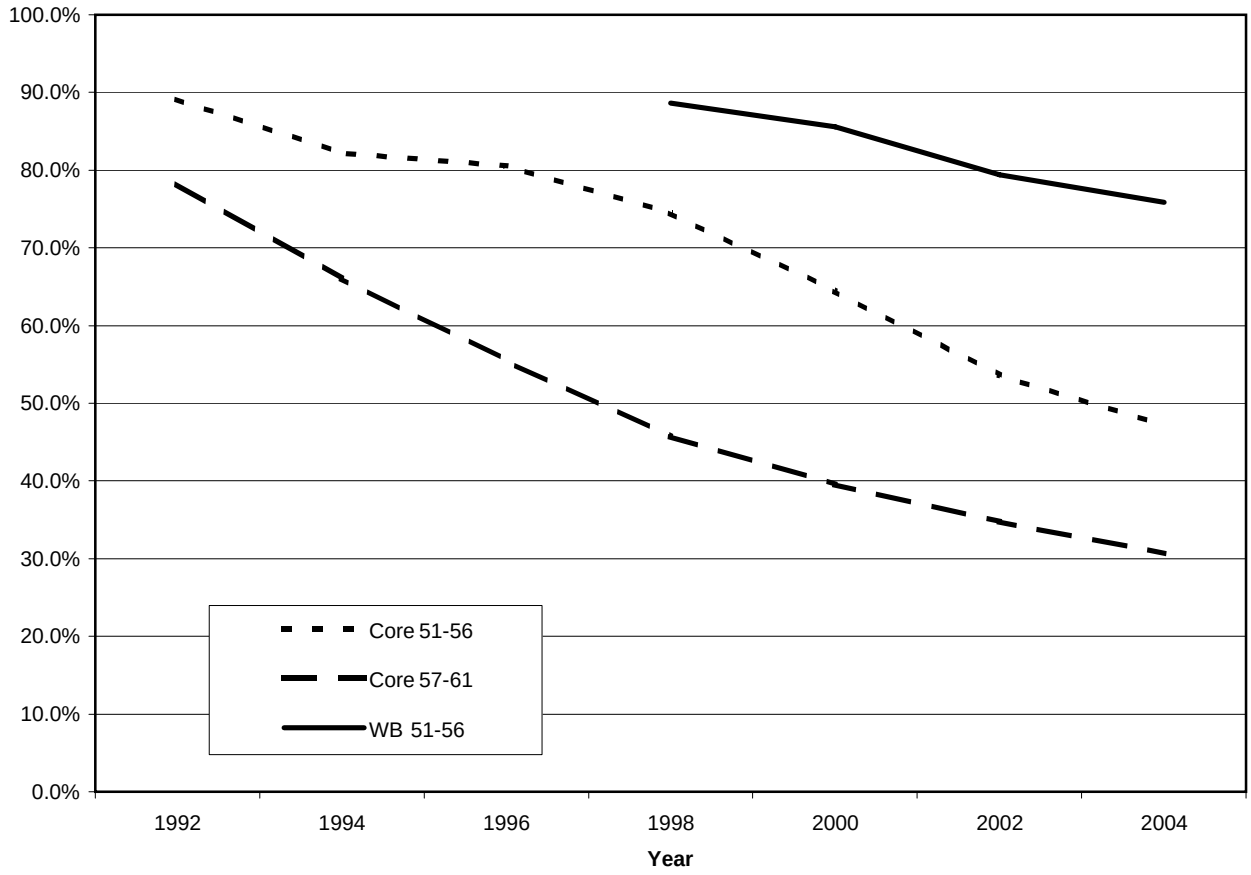


Figure 3b

Work Status, by Wave and Cohort
Women
1992 - 2004

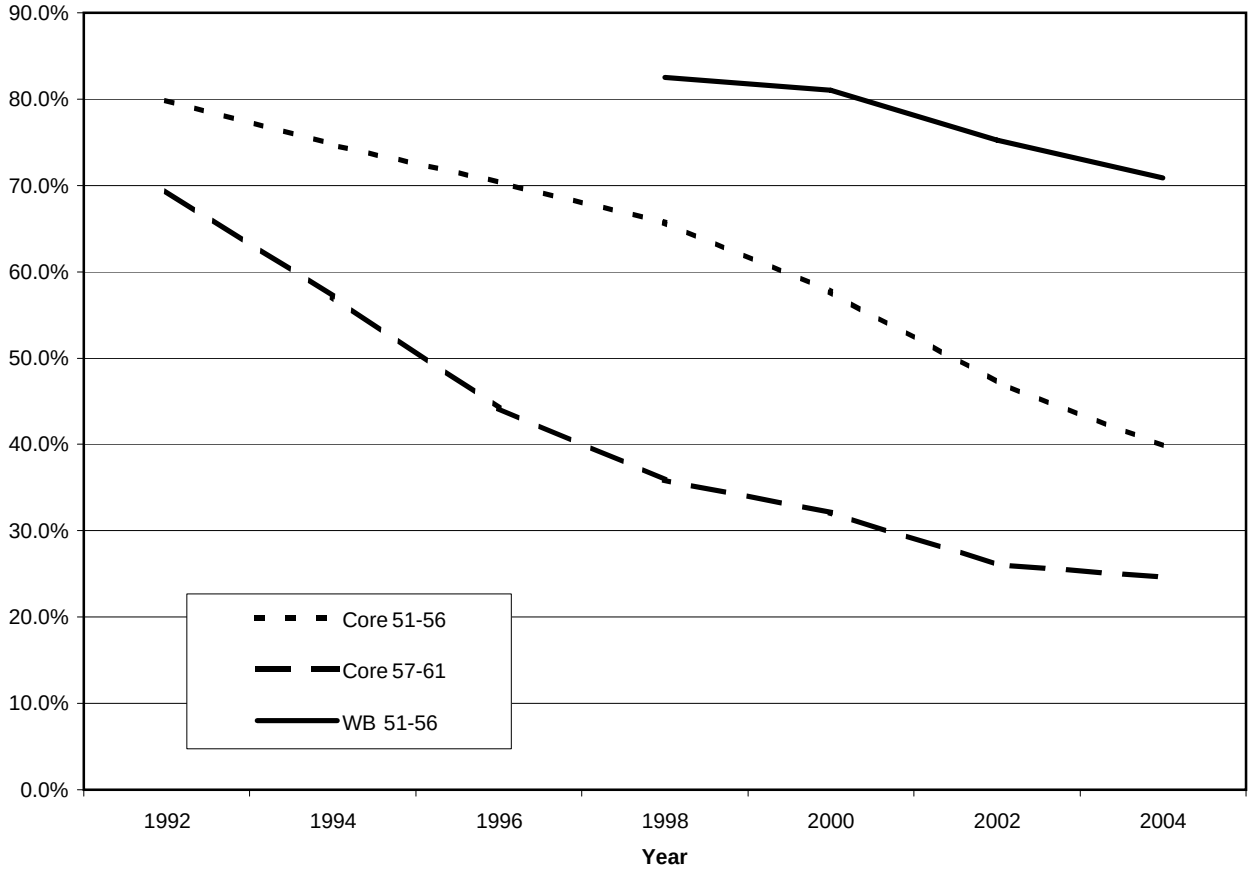


Table 1

Sample Size
by Gender, Survey Participation, and Work Status

HRS Core: Respondents Aged 51-61 in 1992

	Men	Women	Total
Particpated in wave 1			
n	5,869	6,783	12,652
Worked since age 49			
n	5,344	5,196	10,540
% of HRS core	91.1%	76.6%	83.3%
Had FTC job after age 49			
n	4,280	3,082	7,362
% of HRS core	72.9%	45.4%	58.2%
On FTC in 1992			
n	3,057	2,513	5,570
% of HRS core	52.1%	37.0%	44.0%

HRS War Babies: Respondents Aged 51-56 in 1998

	Men	Women	Total
Particpated in wave 4			
n	1,200	1,329	2,529
Worked since age 49			
n	1,122	1,159	2,281
% of HRS WB	93.5%	87.2%	90.2%
Had FTC job after age 49			
n	890	675	1,565
% of HRS WB	74.2%	50.8%	61.9%
On FTC in 1998			
n	843	664	1,507
% of HRS WB	70.3%	50.0%	59.6%

Source: Authors' calculations based on the Health and Retirement Study.

Table 2

Current Employment Status in 2004, by Gender

Individuals with a Full-Time Career Job in their Work History
and a FTC Job Since Age 50

HRS Core: Respondents Aged 51-61 in 1992

	n	Full Time Career Job	Bridge Job	Don't Know	% with Bridge[1]
Men, Working	1,210	14.4%	24.2%	2.4%	
Men, Nonworking, Last job was	1,736	30.3%	22.2%	6.3%	
Total	2,946	44.8%	46.5%	8.8%	60.5%
Women, Working	1,105	20.4%	24.1%	1.7%	
Women, Nonworking, Last job was	1,288	29.4%	19.6%	4.9%	
Total	2,393	49.8%	43.7%	6.6%	59.8%

HRS War Babies: Respondents Aged 51-56 in 1998

	n	Full Time Career Job	Bridge Job	Don't Know	% with Bridge[1]
Men, Working	699	44.3%	29.1%	3.3%	
Men, Nonworking, Last job was	212	13.1%	7.4%	2.9%	
Total	911	57.4%	36.4%	6.1%	73.6%
Women, Working	653	35.6%	32.9%	2.4%	
Women, Nonworking, Last job was	269	9.8%	16.3%	3.1%	
Total	922	45.3%	49.1%	5.5%	83.4%

1: calculated as the ratio of those who moved to a bridge job among those who have made a transition.
Source: Authors' calculations based on the Health and Retirement Study.

Table 3a

Employment Status of HRS Core in 2004, by Demographic Characteristics

	Men			Women		
Determinants	Percentage Working[1]	Percentage Still on Full-Time Career Job[2]	Percentage Who Moved to a Bridge Job in First Transition[3]	Percentage Working[1]	Percentage Still on Full-Time Career Job[2]	Percentage Who Moved to a Bridge Job in First Transition[3]
Age in 2004						
Overall	38.1%	16.1%	55.2%	39.3%	20.8%	56.9%
< 62	69.7%	31.6%	66.7%	66.6%	38.8%	70.0%
62 - 64	54.0%	25.5%	63.0%	47.1%	21.7%	61.6%
65 - 69	39.6%	13.7%	51.9%	33.5%	10.9%	52.4%
70 +	24.8%	5.8%	51.6%	20.2%	4.0%	41.5%
Subjective Health Status						
excellent or very good	45.0%	18.4%	57.6%	45.2%	23.8%	61.5%
good	33.2%	12.5%	54.4%	36.7%	16.9%	52.0%
fair or poor	21.5%	12.2%	44.1%	21.6%	12.0%	43.3%
College Degree	48.3%	19.4%	61.5%	46.8%	24.1%	62.8%
Less than College Degree	34.9%	14.9%	53.3%	37.7%	19.9%	55.4%
Married	38.7%	16.2%	55.8%	40.7%	23.0%	57.7%
Not Married	32.7%	14.7%	50.3%	34.9%	14.1%	54.6%
Dependent Children	48.7%	22.9%	57.7%	55.3%	35.4%	70.7%
No Dependent Children	35.9%	14.3%	54.7%	36.6%	17.6%	54.6%
Spouse Employed	41.8%	16.8%	56.9%	43.6%	23.4%	59.2%
Spouse Not Employed	33.3%	14.9%	52.6%	34.0%	17.0%	53.8%

1: among those who have worked since age 49
2: among those on a FTC job in the first wave of data
3: among those on a FTC job in the first wave and who have moved off of that FTC job
Source: Authors' calculations based on the Health and Retirement Study.

Table 3b

Employment Status of HRS War Babies in 2004, by Demographic Characteristics

	Men			Women		
Determinants	Percentage Working[1]	Percentage Still on Full-Time Career Job[2]	Percentage Who Moved to a Bridge Job in First Transition[3]	Percentage Working[1]	Percentage Still on Full-Time Career Job[2]	Percentage Who Moved to a Bridge Job in First Transition[3]
Age in 2004						
Overall	75.9%	53.7%	66.6%	70.9%	54.9%	67.8%
< 60	80.9%	58.7%	70.1%	72.9%	58.4%	68.2%
61 - 62	71.7%	48.4%	63.9%	63.8%	39.2%	70.4%
> 62	59.4%	33.8%	57.1%	66.7%	53.3%	50.0%
Subjective Health Status						
excellent or very good	83.8%	47.7%	72.0%	78.4%	49.9%	76.6%
good	73.6%	46.2%	58.2%	70.9%	47.6%	57.6%
fair or poor	49.6%	38.7%	52.8%	46.5%	36.1%	44.4%
College Degree	81.8%	43.7%	78.7%	74.2%	46.7%	77.8%
Less than College Degree	74.8%	46.8%	62.8%	70.4%	47.6%	64.1%
Married	76.6%	46.8%	65.4%	71.5%	50.1%	63.2%
Not Married	72.2%	43.5%	67.2%	69.2%	40.9%	71.8%
Dependent Children	76.7%	47.1%	64.8%	65.3%	38.8%	56.9%
No Dependent Children	75.4%	45.8%	66.3%	72.5%	50.2%	69.6%
Spouse Employed	78.7%	48.5%	70.0%	71.1%	53.2%	64.9%
Spouse Not Employed	71.5%	43.1%	56.0%	71.4%	44.1%	56.7%

1: among those who have worked since age 49
2: among those on a FTC job in the first wave of data
3: among those on a FTC job in the first wave and who have moved off of that FTC job
Source: Authors' calculations based on the Health and Retirement Study.

Table 3c

Employment Status of HRS Core in 2004, by FTC Job Characteristics

	Men			Women		
Determinants	Percentage Working[1]	Percentage Still on Full-Time Career Job[2]	Percentage Who Moved to a Bridge Job in First Transition[3]	Percentage Working[1]	Percentage Still on Full-Time Career Job[2]	Percentage Who Moved to a Bridge Job in First Transition[3]
Health Insurance Status						
Not covered on career job	38.7%	21.3%	73.0%	39.4%	23.1%	76.0%
"Covered and would maintain " coverage	35.4%	14.0%	53.2%	37.7%	19.1%	55.2%
"Covered and would lose" coverage	50.5%	22.6%	51.9%	46.5%	24.5%	54.0%
Pension Status						
No Pension	42.4%	21.5%	65.6%	37.3%	19.9%	66.9%
Defined - Contribution only	43.9%	19.4%	59.1%	43.7%	23.5%	52.7%
Defined - Benefit only	31.2%	10.6%	46.3%	38.7%	18.4%	49.9%
Defined - Contribution and Defined - Benefit	48.8%	16.4%	63.4%	56.6%	39.4%	75.0%
Self-Employed	58.3%	27.6%	77.2%	48.7%	20.6%	75.2%
Wage and Salary	33.7%	13.1%	50.7%	38.2%	20.8%	54.8%
Wage Rate						
< $6/hour	46.1%	20.3%	72.1%	42.1%	24.7%	66.2%
$6 - $10/hour	38.8%	17.1%	56.5%	43.5%	21.0%	55.9%
$10 - $20/hour	41.1%	14.4%	48.6%	46.2%	18.5%	54.6%
$20 - $50/hour	45.2%	14.0%	57.2%	44.2%	24.7%	53.9%
> $50/hour	54.7%	30.2%	68.6%	38.9%	0.0%	62.5%
Occupation Status						
White collar, highly skilled	49.0%	17.7%	60.6%	49.5%	22.8%	59.3%
White collar, other	48.7%	17.3%	58.4%	46.1%	22.2%	57.0%
Blue collar, highly skilled	38.1%	12.6%	49.2%	35.0%	13.7%	47.2%
Blue collar, other	39.2%	20.6%	54.9%	41.5%	18.7%	59.4%

1: among those who have worked since age 49
2: among those on a FTC job in the first wave of data
3: among those on a FTC job in the first wave and who have moved off of that FTC job
Source: Authors' calculations based on the Health and Retirement Study.

Table 3d

Employment Status of HRS War Babies in 2004, by FTC Job Characteristics

	Men			Women		
Determinants	Percentage Working[1]	Percentage Still on Full-Time Career Job[2]	Percentage Who Moved to a Bridge Job in First Transition[3]	Percentage Working[1]	Percentage Still on Full-Time Career Job[2]	Percentage Who Moved to a Bridge Job in First Transition[3]
Health Insurance Status						
Not covered on career job	65.5%	44.9%	79.2%	69.9%	41.2%	82.4%
"Covered and would maintain " coverage	73.4%	50.5%	65.1%	65.4%	50.3%	66.2%
"Covered and would lose" coverage	82.0%	59.9%	61.0%	83.1%	61.6%	67.6%
Pension Status						
No Pension	70.6%	50.6%	83.0%	61.8%	46.3%	70.1%
Defined - Contribution only	82.5%	57.3%	59.7%	81.5%	59.1%	62.9%
Defined - Benefit only	75.3%	52.2%	52.9%	79.0%	55.5%	68.3%
Defined - Contribution and Defined - Benefit	75.3%	54.6%	47.4%	74.6%	49.6%	63.6%
Self-Employed	86.4%	62.8%	87.8%	79.2%	50.9%	87.0%
Wage and Salary	80.4%	51.9%	63.2%	77.5%	55.3%	65.7%
Wage Rate						
< $6/hour	90.2%	64.3%	90.0%	64.5%	41.0%	50.0%
$6 - $10/hour	83.2%	50.6%	83.3%	76.0%	56.3%	60.8%
$10 - $20/hour	81.8%	53.2%	63.1%	81.2%	53.3%	69.1%
$20 - $50/hour	81.1%	56.6%	62.0%	83.3%	63.6%	75.6%
> $50/hour	89.7%	39.1%	85.7%	83.3%	100.0%	------
Occupation Status						
White collar, highly skilled	80.2%	52.1%	72.3%	78.7%	59.1%	77.2%
White collar, other	74.3%	52.8%	61.7%	68.1%	51.9%	68.4%
Blue collar, highly skilled	74.2%	56.8%	60.8%	71.8%	59.0%	54.5%
Blue collar, other	69.4%	54.0%	61.5%	57.9%	47.1%	50.0%

1: among those who have worked since age 49
2: among those on a FTC job in the first wave of data
3: among those on a FTC job in the first wave and who have moved off of that FTC job
Source: Authors' calculations based on the Health and Retirement Study.

Table 4a

Marginal Effects from Multinomial Logistic Regression
Dependent Variable: First Transition from Full-Time Career Job
HRS Core Men on a Full-Time Career Job in 1992

	Full-Time Career Job		Bridge Job	
	coef	p-value	coef	p-value
Age	-0.0174	0.000	-0.0085	0.002
Education				
Less than high school	0.0239	0.121	-0.0290	0.294
High school graduate	------	------	------	------
College graduate	0.0075	0.618	0.0834	0.005
Respondent Health				
Excellent/very good	-0.0022	0.860	0.0994	0.000
Good	------	------	------	------
Fair/poor	-0.0190	0.302	-0.0958	0.007
Spouse Health				
Excellent/very good	-0.0228	0.094	0.0167	0.539
Good	------	------	------	------
Fair/poor	-0.0121	0.509	-0.0325	0.390
Married	0.0075	0.722	0.0955	0.016
Dependent Child	0.0328	0.018	0.0000	1.000
Occupational Status				
White collar - high skilled	0.0317	0.090	-0.0609	0.072
White collar - other	0.0459	0.024	-0.0392	0.305
Blue collar - high skilled	0.0080	0.643	-0.0983	0.001
Blue collar - other	------	------	------	------
Health Insurance Status				
Portable	-0.0003	0.979	-0.0163	0.537
Non-portable	------	------	------	------
None	-0.0614	0.017	0.1127	0.024
Pension Status				
Defined-benefit	-0.0723	0.000	-0.2348	0.000
Defined-contribution	0.0135	0.319	-0.0550	0.051
None	------	------	------	------
Both	-0.0271	0.448	0.1004	0.095
Self-Employed	0.0913	0.000	0.0448	0.220
Wage	0.0017	0.022	-0.0059	0.000
Wage Squared	0.0000	0.440	0.0001	0.010
Wealth	0.0001	0.631	-0.0003	0.650
Wealth Squared	0.0000	0.973	0.0000	0.737
Own Home	0.0654	0.001	0.0062	0.846
Constant	0.7359	0.000	0.5464	0.000

Source: Authors' calculations based on the Health and Retirement Study.

Table 4b

Marginal Effects from Multinomial Logistic Regression
Dependent Variable: First Transition from Full-Time Career Job
HRS War Babies Men on a Full-Time Career Job in 1998

	Full-Time Career Job		Bridge Job	
	coef	p-value	coef	p-value
Age	-0.0258	0.020	0.0192	0.051
Education				
Less than high school	0.1274	0.076	-0.0920	0.176
High school graduate	------	------	------	------
College graduate	-0.1161	0.029	0.1691	0.001
Respondent Health				
Excellent/very good	-0.0617	0.168	0.1045	0.013
Good	------	------	------	------
Fair/poor	-0.1132	0.113	0.1160	0.070
Spouse Health				
Excellent/very good	-0.1073	0.033	0.1496	0.002
Good	------	------	------	------
Fair/poor	0.0451	0.548	-0.0301	0.686
Married	0.0490	0.507	-0.0796	0.243
Dependent Child	0.0050	0.906	0.0032	0.936
Occupational Status				
White collar - high skilled	0.0614	0.342	-0.0940	0.116
White collar - other	0.0128	0.849	-0.0577	0.358
Blue collar - high skilled	0.0687	0.245	-0.0905	0.097
Blue collar - other	------	------	------	------
Health Insurance Status				
Portable	-0.1107	0.008	0.0212	0.591
Non-portable	------	------	------	------
None	-0.1945	0.039	0.0875	0.278
Pension Status				
Defined-benefit	0.1059	0.034	-0.1580	0.001
Defined-contribution	0.1178	0.015	-0.0679	0.142
None	------	------	------	------
Both	-0.1254	0.162	0.0643	0.476
Self-Employed	0.2335	0.001	-0.0639	0.297
Wage	0.0064	0.012	-0.0063	0.005
Wage Squared	0.0000	0.194	0.00004	0.038
Wealth	0.0001	0.947	-0.0018	0.125
Wealth Squared	0.0000	0.383	0.0000	0.267
Own Home	0.0121	0.848	-0.0474	0.386
Constant	1.4893	0.013	-0.9596	0.071

Source: Authors' calculations based on the Health and Retirement Study.

Table 4c

Marginal Effects from Multinomial Logistic Regression
Dependent Variable: First Transition from Full-Time Career Job
HRS Core Women on a Full-Time Career Job in 1992

	Full-Time Career Job		Bridge Job	
	coef	p-value	coef	p-value
Age	-0.0231	0.000	-0.0060	0.016
Education				
Less than high school	-0.0060	0.809	-0.0918	0.006
High school graduate	------	------	------	------
College graduate	-0.0038	0.856	0.0863	0.010
Respondent Health				
Excellent/very good	0.0114	0.514	0.0850	0.001
Good	------	------	------	------
Fair/poor	-0.0431	0.126	-0.0279	0.462
Spouse Health				
Excellent/very good	-0.0425	0.048	0.0233	0.467
Good	------	------	------	------
Fair/poor	0.0168	0.516	-0.0510	0.218
Married	-0.0166	0.494	0.0074	0.841
Dependent Child	-0.0487	0.004	0.0384	0.125
Occupational Status				
White collar - high skilled	0.0599	0.032	-0.0982	0.009
White collar - other	0.1020	0.000	-0.0867	0.008
Blue collar - high skilled	0.1132	0.000	-0.0389	0.416
Blue collar - other	------	------	------	------
Health Insurance Status				
Portable	-0.0217	0.191	0.0727	0.006
Non-portable	------	------	------	------
None	-0.0643	0.072	0.2292	0.000
Pension Status				
Defined-benefit	-0.0362	0.063	-0.2521	0.000
Defined-contribution	0.0271	0.133	-0.1922	0.000
None	------	------	------	------
Both	0.0288	0.478	0.2040	0.004
Self-Employed	0.0543	0.055	-0.0919	0.042
Wage	0.0044	0.005	-0.0020	0.405
Wage Squared	0.0000	0.410	0.0000	0.298
Wealth	0.0006	0.273	-0.0020	0.011
Wealth Squared	0.0000	0.283	8.4E-06	0.010
Own Home	0.0474	0.051	0.0396	0.222
Constant	1.0118	0.000	0.4925	0.000

Source: Authors' calculations based on the Health and Retirement Study.

Table 4d

Marginal Effects from Multinomial Logistic Regression
Dependent Variable: First Transition from Full-Time Career Job
HRS War Babies Women on a Full-Time Career Job in 1998

	Full-Time Career Job		Bridge Job	
	coef	p-value	coef	p-value
Age	-0.0087	0.464	0.0091	0.389
Education				
Less than high school	0.2434	0.030	-0.2469	0.021
High school graduate	------	------	------	------
College graduate	-0.0535	0.380	0.1002	0.068
Respondent Health				
Excellent/very good	-0.0306	0.563	0.0774	0.121
Good	------	------	------	------
Fair/poor	-0.0755	0.358	-0.0596	0.431
Spouse Health				
Excellent/very good	0.0163	0.786	0.0383	0.498
Good	------	------	------	------
Fair/poor	0.0784	0.385	0.0133	0.878
Married	0.0163	0.857	-0.1400	0.103
Dependent Child	0.1060	0.030	-0.0973	0.033
Occupational Status				
White collar - high skilled	0.1882	0.012	-0.1100	0.100
White collar - other	0.2000	0.003	-0.1405	0.022
Blue collar - high skilled	0.2933	0.002	-0.1361	0.117
Blue collar - other	------	------	------	------
Health Insurance Status				
Portable	-0.0677	0.161	0.0680	0.135
Non-portable	------	------	------	------
None	-0.2052	0.090	0.1815	0.069
Pension Status				
Defined-benefit	-0.0120	0.829	-0.0474	0.373
Defined-contribution	0.0638	0.227	-0.0995	0.048
None	------	------	------	------
Both	0.0369	0.731	-0.0072	0.947
Self-Employed	0.1925	0.042	-0.0275	0.738
Wage	0.0078	0.214	-0.0025	0.664
Wage Squared	0.0001	0.677	-0.0001	0.296
Wealth	0.0000	0.979	-0.0005	0.726
Wealth Squared	0.0000	0.917	0.0000	0.806
Own Home	0.0359	0.673	-0.1261	0.080
Constant	0.4049	0.536	-0.2447	0.671

Source: Authors' calculations based on the Health and Retirement Study.

Table 5a

Marginal Effects from Logistic Regression
Dependent Variable: Working at time *t* (working = 1)
Men Who Have Worked Since Age 49

	coef	p-value
Age in 2004		
57 or younger	------	------
58-61	-0.0792	0.000
62-64	-0.2659	0.000
65-69	-0.3229	0.000
70 or older	-0.3257	0.000
Respondent Health		
Excellent/very good	0.0472	0.000
Good	------	------
Fair/poor	-0.2082	0.000
Spouse Health		
Excellent/very good	-0.0506	0.000
Good	------	------
Fair/poor	0.0464	0.004
Education		
Less than high school	0.0037	0.780
High school graduate	------	------
College graduate	0.0506	0.000
Married	-0.0050	0.876
Dependent Child	0.0427	0.001
Health Insurance Status		
Portable	-0.5163	0.000
Non-portable	------	------
None	-0.5297	0.000
Pension Status		
Defined-benefit	-0.3078	0.000
Defined-contribution	-0.0661	0.000
Both	0.0910	0.001
None	------	------
Occupational Status		
White collar - high skilled	0.1038	0.000
White collar - other	0.1478	0.000
Blue collar - high skilled	0.0952	0.000
Blue collar - other	------	------
Self Employed	0.2096	0.000
Wage	0.0049	0.000
Wage Squared	-5.1E-06	0.000
Wealth	-0.0010	0.000
Wealth Squared	6.7E-07	0.000
Own Home	-0.0079	0.606
Constant	0.6275	0.000

Regressors (continued)	coef	p-value
War Baby Indicator	0.1589	0.000
Year Indicators		
1992	1.1682	0.000
1994	0.4175	0.000
1996	0.2484	0.000
1998	0.1955	0.000
2000	0.1195	0.000
2002	0.0661	0.000
2004	------	------
War Baby Interaction Terms		
War Baby * 1998	0.8244	0.000
War Baby * 2000	0.1682	0.002
War Baby * 2002	0.0017	0.970
War Baby * 2004	------	------

Source: Authors' calculations based on the Health and Retirement Study.

Table 5b

Marginal Effects from Logistic Regression
Dependent Variable: Working at time *t* (working = 1)
Women Who Have Worked Since Age 49

	coef	p-value
Age in 2004		
57 or younger	------	------
58-61	-0.1021	0.000
62-64	-0.2422	0.000
65-69	-0.3106	0.000
70 or older	-0.3958	0.000
Respondent Health		
Excellent/very good	0.0353	0.004
Good	------	------
Fair/poor	-0.2202	0.000
Spouse Health		
Excellent/very good	-0.0474	0.002
Good	------	------
Fair/poor	0.0384	0.032
Education		
Less than high school	-0.0093	0.541
High school graduate	------	------
College graduate	-0.0305	0.062
Married	-0.0526	0.170
Dependent Child	0.0485	0.000
Health Insurance Status		
Portable	-0.4896	0.000
Non-portable	------	------
None	-0.4643	0.000
Pension Status		
Defined-benefit	-0.2532	0.000
Defined-contribution	-0.1423	0.000
None	------	------
Both	0.2051	0.000
Occupational Status		
White collar - high skilled	0.0909	0.000
White collar - other	0.1467	0.000
Blue collar - high skilled	0.1116	0.000
Blue collar - other	------	------
Self Employed	0.1809	0.000
Wage	0.0107	0.000
Wage Squared	-1.4E-05	0.000
Wealth	-0.0010	0.000
Wealth Squared	2.3E-07	0.000
Own Home	-0.0024	0.876
Constant	0.5910	0.000

Regressors (continued)	coef	p-value
War Baby Indicator	0.1354	0.001
Year Indicators		
1992	0.9709	0.000
1994	0.4776	0.000
1996	0.2637	0.000
1998	0.2514	0.000
2000	0.1780	0.000
2002	0.1126	0.000
2004	------	------
War Baby Interaction Terms		
War Baby * 1998	0.6714	0.000
War Baby * 2000	0.1490	0.013
War Baby * 2002	-0.0119	0.814
War Baby * 2004	------	------

Source: Authors' calculations based on the Health and Retirement Study.

Table 6a

Coefficients from OLS Regression
Dependent Variable: Hours Worked per Year
Men with a FTC Job Since Age 49
Prior to Transition from FTC Job

	coef	p-value
Age in 2004		
57 or younger	------	------
58 - 61	27.1	0.002
62 - 64	-72.3	0.000
65 - 69	-133.2	0.000
70 or older	-207.3	0.000
Respondent Health		
Excellent/very good	24.7	0.002
Good	------	------
Fair/poor	-17.7	0.143
Spouse Health		
Excellent/very good	12.1	0.172
Good	------	------
Fair/poor	0.6	0.961
Education		
Less than high school	-8.7	0.386
High school graduate	------	------
College graduate	-31.0	0.004
Race		
White	------	------
Black	-33.4	0.003
Other	-29.6	0.145
Married	47.1	0.049
Dependent Children	11.6	0.258
Health Insurance Status		
Portable	-24.6	0.003
Non-portable	------	------
None	1.8	0.927
Pension Status		
Defined-benefit	14.1	0.094
Defined-contribution	72.3	0.000
None	------	------
Both	-24.2	0.100
Occupational Status		
White collar - high skilled	57.0	0.000
White collar - other	54.8	0.000
Blue collar - high skilled	-2.7	0.778
Blue collar - other	------	------
Self-employed	1.9	0.896
Wage	-1.7	0.000
Wage Squared	0.002	0.000
Wealth ($1,000)	0.1	0.169
Wealth Squared ($1,000)	0.000	0.290
Own Home	18.9	0.082
Constant	2230.8	0.000

Regressors (continued)	coef	p-value
War Baby Indicator	-36.4	0.179
Year Indicators		
1992	-110.3	0.000
1994	-72.2	0.002
1996	-147.2	0.000
1998	-75.5	0.002
2000	-76.3	0.002
2002	-113.2	0.000
2004	------	------
War Baby Interaction Terms		
War Baby * 1998	18.1	0.574
War Baby * 2000	4.6	0.892
War Baby * 2002	75.7	0.034
War Baby * 2004	------	------

Source: Authors' calculations based on the Health and Retirement Study.

Table 6b

Coefficients from OLS Regression
Dependent Variable: Hours Worked per Year
Men with a FTC Job Since Age 49
After Transition from FTC Job

	coef	p-value
Age in 2004		
57 or younger	------	------
58 - 61	-4.7	0.862
62 - 64	-253.6	0.000
65 - 69	-397.2	0.000
70 or older	-602.1	0.000
Respondent Health		
Excellent/very good	24.5	0.227
Good	------	------
Fair/poor	-77.1	0.006
Spouse Health		
Excellent/very good	-14.6	0.511
Good	------	------
Fair/poor	60.2	0.034
Education		
Less than high school	85.0	0.001
High school graduate	------	------
College graduate	-107.5	0.000
Race		
White	------	------
Black	-73.5	0.010
Other	56.0	0.312
Married	109.4	0.056
Dependent Children	90.0	0.000
Health Insurance Status		
Portable	-234.6	0.000
Non-portable	------	------
None	-171.9	0.000
Pension Status		
Defined-benefit	175.7	0.000
Defined-contribution	301.7	0.000
None	------	------
Both	-174.0	0.006
Occupational Status		
White collar - high skilled	61.3	0.037
White collar - other	68.6	0.018
Blue collar - high skilled	38.1	0.120
Blue collar - other	------	------
Self-employed	-207.3	0.000
Wage	-2.5	0.000
Wage Squared	0.001	0.040
Wealth ($1,000)	-0.5	0.007
Wealth Squared ($1,000)	0.0003	0.000
Own Home	-124.8	0.000
Constant	1695.8	0.000

Regressors (continued)	coef	p-value
War Baby Indicator	8.1	0.905
Year Indicators		
1992	91.2	0.056
1994	129.1	0.005
1996	95.8	0.025
1998	103.7	0.010
2000	123.8	0.002
2002	175.6	0.000
2004	------	------
War Baby Interaction Terms		
War Baby * 1998	274.7	0.001
War Baby * 2000	181.7	0.045
War Baby * 2002	1.2	0.989
War Baby * 2004	------	------

Source: Authors' calculations based on the Health and Retirement Study.

Table 6c

Coefficients from OLS Regression
Dependent Variable: Hours Worked per Year
Women with a FTC Job Since Age 49
Prior to Transition from FTC Job

	coef	p-value
Age in 2004		
57 or younger	------	------
58 - 61	-18.2	0.039
62 - 64	-15.7	0.318
65 - 69	-0.4	0.989
70 or older	-59.2	0.365
Respondent Health		
Excellent/very good	10.1	0.204
Good	------	------
Fair/poor	-17.0	0.136
Spouse Health		
Excellent/very good	-4.3	0.666
Good	------	------
Fair/poor	18.8	0.124
Education		
Less than high school	9.6	0.441
High school graduate	------	------
College graduate	25.4	0.027
Race		
White	------	------
Black	-40.3	0.000
Other	4.7	0.789
Married	-77.7	0.007
Dependent Children	-22.9	0.002
Health Insurance Status		
Portable	-12.8	0.095
Non-portable	------	------
None	-47.9	0.026
Pension Status		
Defined-benefit	38.9	0.000
Defined-contribution	79.3	0.000
None	------	------
Both	-33.5	0.055
Occupational Status		
White collar - high skilled	50.2	0.000
White collar - other	-4.0	0.721
Blue collar - high skilled	15.2	0.265
Blue collar - other	------	------
Self-employed	26.5	0.196
Wage	-4.1	0.000
Wage Squared	0.003	0.029
Wealth ($1,000)	0.4	0.003
Wealth Squared ($1,000)	-0.0003	0.028
Own Home	8.2	0.457
Constant	2124.9	0.000

Regressors (continued)	coef	p-value
War Baby Indicator	62.6	0.010
Year Indicators		
1992	-53.5	0.004
1994	-1.7	0.924
1996	-80.7	0.000
1998	-1.6	0.933
2000	2.9	0.881
2002	-18.6	0.390
2004	------	------
War Baby Interaction Terms		
War Baby * 1998	-53.6	0.078
War Baby * 2000	-53.1	0.086
War Baby * 2002	-28.1	0.406
War Baby * 2004	------	------

Source: Authors' calculations based on the Health and Retirement Study.

Table 6d

Coefficients from OLS Regression
Dependent Variable: Hours Worked per Year
Women with a FTC Job Since Age 49
After Transition from FTC Job

	coef	p-value
Age in 2004		
57 or younger	------	------
58 - 61	-22.8	0.316
62 - 64	-223.2	0.000
65 - 69	-360.2	0.000
70 or older	-532.7	0.000
Respondent Health		
Excellent/very good	-6.2	0.762
Good	------	------
Fair/poor	-26.9	0.391
Spouse Health		
Excellent/very good	-32.4	0.219
Good	------	------
Fair/poor	-4.0	0.903
Education		
Less than high school	16.5	0.567
High school graduate	------	------
College graduate	-130.5	0.000
Race		
White	------	------
Black	-148.1	0.000
Other	-48.9	0.291
Married	-113.4	0.059
Dependent Children	-9.6	0.636
Health Insurance Status		
Portable	-249.7	0.000
Non-portable	------	------
None	-190.1	0.000
Pension Status		
Defined-benefit	164.2	0.000
Defined-contribution	271.4	0.000
None	------	------
Both	-140.4	0.017
Occupational Status		
White collar - high skilled	19.6	0.541
White collar - other	-26.0	0.309
Blue collar - high skilled	12.5	0.759
Blue collar - other	------	------
Self-employed	-55.9	0.082
Wage	-4.5	0.000
Wage Squared	0.005	0.008
Wealth ($1,000)	-1.7	0.000
Wealth Squared ($1,000)	0.001	0.000
Own Home	-39.4	0.141
Constant	1842.5	0.000

Regressors (continued)	coef	p-value
War Baby Indicator	50.0	0.536
Year Indicators		
1992	35.4	0.489
1994	100.4	0.034
1996	227.4	0.000
1998	165.4	0.000
2000	144.7	0.001
2002	169.6	0.000
2004	------	------
War Baby Interaction Terms		
War Baby * 1998	240.2	0.014
War Baby * 2000	106.4	0.286
War Baby * 2002	-41.7	0.664
War Baby * 2004	------	------

Source: Authors' calculations based on the Health and Retirement Study.