Divergent Pathways? Racial/Ethnic Differences in Older Women's Labor Force Withdrawal

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Abstract

Objectives—The purpose of this study was to investigate how women's labor force withdrawal behavior varies across race/ethnicity and to identify life course factors that generate these differences.

Methods—Using a sample of 7,235 women from the 1992–2004 Health and Retirement Study, we estimated cross-sectional multinomial logit models to explore racial/ethnic differences in labor force status at first interview. We then examined the prospective risk of exiting the labor force via retirement, work disability, or death using discrete-time hazard models.

Results—Black and Hispanic women had twice the odds of Whites of being work-disabled at first interview. Whereas younger minorities had lower odds of being retired at first interview, older minorities had higher odds. The prospective results showed that both Blacks and Hispanics had higher risks of work disability but not of retirement or of dying in the labor force. Overall, racial/ethnic differences in mid- and later life work behavior stemmed primarily from disparities in life course capital.

Discussion—This study shows that substantial racial/ethnic disparities in labor force exit behavior have already emerged by midlife. It is important to note that distinguishing between alternative pathways out of the labor force demonstrates that work disability is a more common experience for Black and Hispanic women than for Whites.

Keywords

Retirement; Gender; Race/ethnicity; Life course; Work disability

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Older women and people of color will compose an increasing proportion of the U.S. labor supply in the 21st century as a result of a complex interplay between population aging, women's rising and men's declining labor force participation, and increases in racial/ethnic diversity at all ages (Burr & Mutchler, 2007). Given these changes in the size and composition of the labor force, it is especially important to understand the labor market experiences of older adults in general, and older women and minorities in particular. With the Baby Boom cohort approaching the end of their work careers, mounting concern about

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the future solvency of the Social Security system has led to a number of policy proposals aimed at retaining older workers in the labor market in order to reduce benefit demand (Hardy, 2006). However, many such proposals are implicitly based on popularized notions and prior research documenting the work lives of White men. Such proposals are not adequate for women and racial/ethnic minorities (Flippen, 2005; O'Rand, 2005; Rix, 2001), given gender and racial/ethnic inequalities in labor force behavior and well-being over the life course. Developing gender- and racially inclusive old-age policies requires a better understanding of the dynamic labor market experiences of women and people of color. Accordingly, the present study investigated the diversity of women's labor force withdrawal patterns, with particular attention to how labor force exits differ by race/ethnicity.

Retirement is a prominent phase of the modern life course (Henretta, 2001), yet there has been considerably less research of women's retirement than men's. It is important to note that male-centric models of retirement are not suitable for explaining women's labor force withdrawal patterns (Burr & Mutchler, 2007; Pienta, Burr, & Mutchler, 1994; Warner & Hofmeister, 2006). On average, women experience more work instability (Hsueh & Tienda, 1996), fewer financial resources (Newman, 2003), more health problems, and greater family care responsibilities than men (Moen, 2001). Consequently, we focus on women's labor force withdrawal patterns here because (a) less is known about the diversity of older women's labor force experiences, (b) women's and men's lives evolve differently given the primacy of gender in structuring the life course (Moen & Han, 2001), and (c) predictors of retirement vary by gender (Pienta, 2003; Warner & Hofmeister, 2006). Furthermore, it is important to understand women's labor force behavior in its own right, rather than in comparison to men's, so as not to reify the male model as normative and women's experiences as deviant (Calasanti, 1996).

A major theme of life course research is that transitions, such as retirement, are shaped by (Elder, Johnson, & Crosnoe, 2003; Moen & Han, 2001). Racially stratified opportunity structures result in the accumulation of disadvantages for minorities and disparate aging experiences. We framed our investigation of racial/ethnic inequalities in women's labor force behavior by a life course perspective that underscores the notion that older adults make decisions regarding their employment within the context of life circumstances that influence the attractiveness and accessibility of work. In theory and evidence, labor force behavior in later life is shaped by the interaction of various forms of life course capital (e.g., human, economic, social, and health capital) over time (O'Rand, 2001, 2005). It is important to note that minority women are disadvantaged relative to their White counterparts on an array of outcomes including education, occupation, income, wealth, health, and marriage—key predictors of retirement (Burr & Mutchler, 2007; Warner & Hofmeister, 2006; Willson, 2003). Given the dramatic disadvantages Black and Hispanic women confront, both the timing and nature of labor force withdrawal are likely to vary by race/ethnicity.

We use nationally representative panel data to address several limitations of the extant research on racial/ethnic disparities in women's labor market exit pathways. First, we examine differences in the labor force behavior of White, Black, and Hispanic women. Although Hispanics represent a growing share of the older population, only a handful of studies have investigated their labor force exit patterns (Flippen, 2005; Flippen & Tienda,

2000). Second, we differentiate between retirement, work disability, and death as three distinct pathways out of the labor force. Failing to account for work disability and mortality transitions may obscure racial/ethnic differences, as is the case with men (Hayward, Friedman, & Chen, 1996). Third, we conceptualize and measure women's labor force transitions as dynamic life course processes. Specifically, we estimate both cross-sectional models of older women's labor force status at their first interview and prospective hazard models of their work exits over 12 years to determine whether racial/ethnic differences emerge in midlife and how this shapes competing transitions in the later years. Many prior studies have relied exclusively on cross-sectional data; the few studies to explore racial/ethnic differences in older women's work transitions prospectively did so over relatively short periods. Finally, we examine the extent to which racial/ethnic disparities in specific forms of life course capital underlie racial/ethnic differences in women's labor force exit pathways.

Prior Research

Racial/Ethnic Inequality in the Determinant of Women's Labor Force Exit Pathways

Workers exit the labor force primarily through two pathways: retirement and work disability. A third pathway occurs when workers die while still working. Which exit pathway women follow, and when they do so, is influenced by the human, economic, and health capital they possess and the work and family circumstances they confront in later life (Flippen, 2005; Gibson, 1991; Moen, 2001). Women of color have less capital and face more disadvantaged circumstances, on average, than do Whites; thus, it is reasonable to presume racial/ethnic differences older women's labor force behavior.

The few existing studies that have explored racial/ethnic differences in older women's labor force activity, however, have measured activity differently and shown mixed results. For instance, Belgrave (1988) relied on cross-sectional labor force participation rates and found that Black women are more likely than Whites to be in the labor force. Other cross-sectional studies, however, found no White–Black differences in rates of working for pay (Pienta et al., 1994) but did find higher rates of work disability among Black women (Bound, Schoenbaum, & Waidmann, 1996). Two prospective studies found few racial/ethnic differences in work behavior among women over a 2-year (Flippen & Tienda, 2000) or 6-year (Flippen, 2005; Flippen & Tienda, 2000) period, although there was some indication of dissimilarity in terms of retirement. However, Flippen (2005; Flippen & Tienda, 2000) relied on self-identification as "retired," which is dependent on a number of factors that vary by race/ethnicity, including work history and health status (Gibson, 1991; Szinovacz & DeViney, 1999). On the whole, prior studies have indicated few, if any, racial/ethnic differences in women's retirement. Nevertheless, there are substantial reasons to suspect that White, Black, and Hispanic women exit the labor force through different pathways, particularly with respect to work disability, a factor that has been conspicuously absent from most prior studies.

One of the primary reasons to expect racial/ethnic differences in women's labor force exit pathways is the considerable inequality in older women's socioeconomic status and financial resources (Belgrave, 1988; Newman, 2003). More educated women (Hardy, 1984) and those

in higher status occupations (O'Rand, Henretta, & Krecker, 1992) are less likely to retire, in part because they have higher wages (Mutchler, Burr, Massagli, & Pienta, 1999) that increase the personal and financial costs of retirement. Thus, because they have less schooling than Whites and are overrepresented in low-paying domestic service and labor-intensive jobs (Belgrave, 1988; Newman, 2003), we expect that older Blacks and Hispanics are more likely to retire or become work-disabled (Bound et al., 1996).

However, these human capital differences may also serve to retain older Black and Hispanic women in the labor force. Workers in lower status occupations have less opportunity to accumulate wealth and are less likely to have access to employer-sponsored pensions and retiree health insurance that increase the ability to fund retirement (Pienta et al., 1994; Rogowski & Karoly, 2000). Indeed, Blacks and Hispanics have substantially lower net worth than Whites (Oliver & Shapiro, 1997; Smith, 1995). However, due to their more continuous work histories, Black women are also more likely than their White counterparts to qualify for and depend on employer-sponsored pensions (Flippen & Tienda, 2000; Willson, 2003).

Minority women are less able to maintain good health, in large part due to socioeconomic inequality across the life course (Hayward, Crimmins, Miles, & Yu, 2000). Black and Hispanic women report worse overall health, have a higher prevalence of several major chronic diseases, and spend more years with functional limitations than Whites (Angel & Whitfield, 2007; Hayward, Warner, & Crimmins, 2007; Kelley-Moore & Ferraro, 2004; Smith & Kington, 1997). Thus, we expect racial/ethnic differences in women's labor force exit pathways, given that prior research has found that women in poor health retire earlier (Flippen, 2005) and are more likely to become work-disabled (Warner & Hofmeister, 2006). Though prior studies have not investigated mortality as a pathway out of the labor force among women, it stands to reason that minority women's poorer health would also place them at risk for this transition.

The life course perspective (Elder et al., 2003; Moen, 2001) identifies significant others—principally spouses and dependent children—as an important context in which labor force withdrawal decisions unfold. Married women are more likely to retire than divorced or widowed women (Warner & Hofmeister, 2006), in part due to joint retirement preferences and family care demands (Henretta, O'Rand, & Chan, 1993; Szinovacz, DeViney, & Davey, 2001), but also because they have higher levels of household wealth that facilitates exiting (Smith, 1995; Willson, 2003). Thus, with their lower rates of marriage, higher rates of marital dissolution, and lower rates of remarriage (Cherlin, 1992; U.S. Census Bureau, 2006), we expect that Black and Hispanic women are less likely to retire than Whites. However, higher fertility rates mean that Black and Hispanic women have more dependent children in the household (Cherlin, 1992) and thus may be less likely to exit the labor force (Szinovacz et al., 2001).

Hypotheses

Predicting racial/ethnic differences in women's retirement is not straightforward, owing to the countervailing influences of several forms of life course capital, as reviewed previously. For instance, on the one hand, Black and Hispanic women might be expected to have higher rates of retirement than their White counterparts given their disadvantages in terms of human

and financial capital. In addition, Hispanics have more tenuous attachments to the labor market, as evidenced by their higher rates of unemployment in midlife (Flippen, 2005). On the other hand, the lower rates of marriage and greater number of dependent children in the household among women of color, coupled with considerably less wealth to finance retirement, suggest that these women may be more likely than Whites to delay or forgo retirement. On balance, we hypothesized that, relative to Whites, Blacks would have lower rates of retirement, whereas Hispanics would be more likely to retire, consistent with their respective labor force attachments earlier in the life course. Given minority women's poorer health than Whites, we hypothesized that Black and Hispanic women would experience elevated risks of exiting the labor force via work disability. Similarly, as a result of their poorer health, we expected Black and Hispanic women to be more likely to cease working due to death. Finally, we hypothesized that accounting for racial/ethnic disparities in life course capital would explain these racial/ethnic differences in labor force withdrawal patterns, given the prominent role they play in influencing labor force behavior (O'Rand, 2005; Warner & Hofmeister, 2006).

Methods

We used seven waves of data from the 1992–2004 Health and Retirement Study (HRS) to examine racial/ethnic differences in women's labor force exit pathways. The HRS is a nationally representative panel of noninstitutionalized adults older than the age of 50, with oversamples of African Americans, Hispanics, and residents of Florida. Respondents and their spouses, regardless of age eligibility, are reinterviewed every 2 years on average.

As of 2004, the HRS contained longitudinal information on four different birth cohorts of older adults. The original HRS cohort was fielded in 1992, and those born between 1931 and 1941 were age-eligible for inclusion. The second cohort in the panel came from the Assessment of Health Dynamics Among the Oldest Old study (AHEAD), started as a companion to the HRS panel in 1993, which targeted those born before 1923. In 1998, AHEAD and HRS were combined into a single panel, and two additional birth cohorts were added to the sample. The "War Babies" cohort consisted of those persons born between 1942 and 1947. The final cohort, "Children of the Depression Age," sampled those born between 1924 and 1931 and thus filled in the birth years between the original HRS and AHEAD cohorts. The combined panel is referred to simply as the HRS (see HRS, 2006, for complete study design details).

We constructed our measures using the Rand HRS Data file, a cleaned and streamlined version of the HRS (RAND, 2006), supplemented with the publicly available data files. As recommended by the HRS (2006), we applied respondent-level sampling weights to account for the complex multistage stratified sampling probabilities; we applied time-varying weights to account for attrition and retain panel representativeness where appropriate. We estimated adjusted (i.e., robust) standard errors to account for the clustering in the HRS data using the Taylor-series linearization method.

In the present analysis, we pooled data across cohorts to represent the experiences of adults older than age 50. This strategy had the potential to conflate age, period, and birth cohort

effects if labor force behavior varies according to individual development, historical context, or economic/political cycles, respectively. We tested for the presence of period effects by including binary indicators for interview year and for cohort effects by including binary indicators for birth cohort in preliminary analyses. Regardless of specification, none of the period or cohort indicators were significant, and thus we excluded them from the final analyses. Thus, the lack of evidence to the contrary supports our interpretation of the results as being primarily age effects.

Analytic Sample

We restricted the sample in four ways. First, we limited our analyses to age-eligible women in the original HRS, Children of the Depression Age, and War Babies cohorts (as described previously; see HRS, 2006); we excluded respondents from the AHEAD cohort due to inconsistent measurement of work indicators before the merger with the HRS. Thus, our data were nationally representative of the population aged 50 to 80. This restriction is not problematic, as the overwhelming majority of women exit the labor force well before age 80 (Warner, Hayward, & Hardy, 2007).

Second, we restricted our analyses to White, Black, and Hispanic women. There were too few respondents in other racial/ethnic categories to be meaningful. About three quarters of our sample (76%) identified as White, 17% identified as Black, and 7% identified as Hispanic.

Third, we constrained our analyses to women who worked at least 5 years across their lifetimes, based on a summary measure of respondents' self-reported years worked (RAND, 2006). This excluded women with little or no lifetime labor force attachment (i.e., career homemakers). Consequently, our sample was limited to women for whom a discussion of the end of the working life is personally or socially meaningful, without reducing the variability in women's total work experiences by requiring longer work histories more characteristic of men's experiences (Calasanti, 1996). About 13% of women in the HRS did not have at least 5 years of labor force experience. Whereas most White and Black women had worked at least 5 years for pay (89% and 87%, respectively), only about two thirds of Hispanic women had—consistent with national estimates showing that married Hispanic women are less likely to be in the labor force (U.S. Census Bureau, 2006).

Lastly, we omitted respondents missing information on the explanatory variables used in our analysis. Generally, less than 3% of the respondents were missing on any one measure. Where missingness was greater than 3% (e.g., the longest occupation worked), we retained all of the cases in our analysis by including a binary variable coded one for a missing response. Preliminary analyses indicated that the retention of these cases did not influence our parameter estimates appreciably. Our final analytic sample contained 7,235 women.

Analytic Strategy

We conducted our analysis in two stages. First, we estimated a cross-sectional multinomial logit model to explore racial/ethnic differences in the labor force status of women at their first interview, where women were working, retired, or work-disabled. The results of the cross-sectional model indicated the extent to which disparate labor force transitions in

midlife, prior to enrollment, resulted in differences in labor force status observed at the start of the panel.

Second, we examined labor force withdrawal prospectively by transforming the data into a rectangular person-interval file containing labor force histories for each respondent (see Allison, 1984, 1995, for more information). We necessarily limited the person-interval file to women observed to be in the labor force at some point because only they are able to exit; this thus further restricted our analysis to women with work experience after age 50. Of the 7,235 women in our analytic sample, 64% ($n = 4,631$) were observed in the labor force, and these women contributed 16,064 person-intervals. Analyzing person-intervals as individual observations does not inflate significance tests (Allison, 1995).

We estimated discrete-time hazard models predicting the age-specific risk or likelihood of exiting the labor force, conditional on remaining in the labor force (i.e., "at risk"), via retirement, work disability, or death using a competing-risks framework. Under competing risks, respondents remained at risk until they experienced a focal transition (e.g., retirement) or were right-censored because they experienced another, competing, transition (e.g., work disability or death), attritted, or panel observation ended (see Allison, 1984, for a full discussion). Thus, the prospective hazard models allowed us to determine whether there were differences in retirement, work disability, and mortality exits between White, Black, and Hispanic women if they remained in the labor force. Although not directly equivalent, this competing-risks model of labor force transitions was akin to the multinomial model utilized in the cross-sectional analysis to establish differences in initial labor force states.

Given the limited research on later life work exits of women, in both stages of the analysis we estimated a series of models that entered the explanatory variables as sets, beginning with a baseline model containing indicators of race/ethnicity and age. This allowed us to determine the degree to which each set of indicators explained racial/ethnic differences in women's labor force exit behavior and how these relationships changed or remained the same when we combined all of the predictors. The effects of the independent variables were largely consistent across models, thus we present only the first and final models. As the interpretation of both logit and hazard coefficients is not intuitive, we transformed the results from the multinomial logit and discrete-time hazard models into odds ratios and hazard ratios (HRs), respectively, by exponentiating the parameter estimates. As most of the indicators in our analysis were binary variables, the ratios can also be interpreted as probabilities (probability = HR/[1 + HR]). In preliminary analyses, we largely failed to detect any evidence of differential effects by race (i.e., race interactions) in the effects of any of the covariates.

Dependent Variables

We combined information on work status, self-identification, and whether health limited a respondent's ability to work to generate three mutually exclusive labor force statuses. Respondents were "in the labor force" if they reported working for pay or being unemployed and looking for work. We classified respondents out of the labor force as "work-disabled" if they identified as such or if they identified as retired but indicated that a health condition

prevented them from "working altogether" (Hayward & Grady, 1990). We considered the remaining respondents "retired."

For our cross-sectional analysis, we created a categorical measure where being in the labor force at the first interview served as the reference category. For the prospective analysis of labor force withdrawal, we compared labor force status across adjacent interviews, combined with information on mortality (see HRS, 2006, for details), and created three binary variables coded 1 when a respondent moved from being in the labor force to retired, work-disabled, or dead. We calculated the length of the exposure by assuming that all retirement and work disability exits from the labor force occurred at the midpoint of the interval. We used the date of death to pinpoint the timing of mortality transitions. In the prospective models, all respondents older than the age of 65 who exited the labor force were considered to exit via retirement and not work disability, as there is no longer an actuarial distinction between the two worker insurance programs under the Social Security system (OASDI). We classified respondents of any age who met the criteria outlined as work-disabled at first interview.

Independent Variables

The primary independent variables were binary-coded indicators for Black and Hispanic. Based on our review of the literature on women's labor force dynamics (e.g., Flippen & Tienda, 2000; Henretta et al., 1993; Pienta et al., 1994; Szinovacz et al., 2001; Warner & Hofmeister, 2006), we also included a wide array of life course factors as explanatory variables in both the cross-sectional and prospective analyses. In the cross-sectional model, these measures included age, education, occupation of longest job and labor force attachment (job tenure and stability), benefits (i.e., employer-sponsored pension ownership and eligibility, and health insurance), financial resources (i.e., household income, nonhousing assets, and the value of individual retirement accounts), health (i.e., self-rated health, number of chronic conditions and functional limitations), and family circumstances (i.e., marital status, husband's work and disability status, and the presence of dependent children in the household).

In the prospective retirement and work disability models, we included additional age terms: Age-squared captured the decelerating transition risk with age, and two binary variables for ages 62 and 65 (the latter in the retirement model only) captured the increased transition risk at the Social Security eligibility ages (Warner & Hofmeister, 2006). We also included additional measures of labor force attachment (i.e., self-employed, working part time, being unemployed, and prior labor force exit) and position in the occupational structure (i.e., firm size and being offered an early retirement incentive). All time-varying independent variables were lagged one interview. In the interest of space, we present the full list of the variables and details on coding, as well as descriptive statistics and t tests by race/ethnicity, in Table 1.

Results

There were significant racial/ethnic differences in labor force status at first interview, largely consistent with our hypotheses. About 64% of White women were in the labor force, whereas slightly fewer Black and Hispanic women were working for pay (62%). White

women were the most likely to be retired (30%), whereas Black women were the least likely to be retired (24%). More than twice as many Black and Hispanic women than White women were work-disabled; Blacks and Hispanics were not significantly different from one another (see Table 1).

As expected, White women generally held more human capital and thus were in more advantageous labor market positions than either Black or Hispanic women. A greater percentage of White women had graduated high school and had some college education than either Black or Hispanic women. White women were more likely to have held professional/ managerial, sales, or clerical positions for their longest occupations. Accordingly, White women were more apt to possess employer-sponsored pension and health insurance benefits —but only when compared to Hispanic women. Black women were actually slightly more advantaged than Whites in this regard, despite being most likely to hold a service job as their longest occupation—probably as a result of their greater concentration in large firms or greater job tenure and stability, which would have led to greater access to and qualification for such benefits, respectively (see Table 1). Nevertheless, White women had considerably greater household incomes and assets than women of color. Whites also rated their health more favorably and reported having fewer chronic conditions and functional limitations, as well as being in more advantageous family circumstances in later life. Black women were the least likely to be married and, among the married, the least likely to have a husband working for pay.

Hispanic women were somewhat more disadvantaged than Black women. A majority of Hispanic women had less than a high school education; they were more likely to have worked primarily in labor-intensive occupations, fewer had an employer-sponsored pension or any health insurance, and they had lower incomes. Hispanic women also rated their health least favorably, despite the fact that Black women had the greatest number of chronic conditions and functional limitations. Hispanic women also had more dependent children in their households.

Women's Labor Force Status at First Interview

To determine whether there were racial/ethnic differences in labor force status at first interview, we estimated multinomial logit models predicting whether women were retired or work-disabled relative to being in the labor force. Table 2 displays these results, where Model 1 presents the baseline racial/ethnic differences in the odds of being retired and work-disabled, and Model 2 incorporates the indicators of life course capital and context. In preliminary analyses, we found that the odds for Black and Hispanic women varied by age, requiring the inclusion of Age × Race interaction terms. This necessarily complicates the explanation of effects and requires that all age and race parameters (and significance levels) be interpreted simultaneously. Given the coding of age (= age − 50), all age terms dropped out of the model at age 50 and the odds ratio for each racial/ethnic binary variable can be interpreted as the difference from White women at age 50. For each age past 50, because odds are multiplicative, the odds for each group were calculated by multiplying the odds for the intercept, the race binary variable, age, and the interaction between race and age; we found the odds ratio between two groups by dividing the odds for each group. We first

discuss both models predicting the odds of being retired and then discuss the odds of being work-disabled, to parallel the presentation of results in the prospective analysis.

Overall, our results indicated that racial/ethnic differences in women's labor force exit pathways had already emerged by midlife, largely consistent with our hypotheses. We found that the odds of being retired were about 50% lower for Black women and 30% lower for Hispanic women compared to the odds for Whites at age 50. Although age was positively associated with the odds of being retired, this association was stronger for minority women (see Table 2, Model 1). Thus, the difference between racial/ethnic groups narrowed with age, so that although the odds of being retired for both Blacks and Hispanics were lower than the odds for Whites at younger ages, the odds of being retired were actually greater at older ages. Supplemental analyses demonstrated that Black women younger than about age 65 had a lower odds of being retired at the first interview than Whites, but greater odds thereafter. For Hispanic women, the crossover in odds was substantially younger—age 56 (calculations not shown). This pattern of age effects was somewhat contrary to our expectations that the odds of being retired would be uniformly lower for Black women and older Hispanic women compared with Whites.

Human, economic, and health capital, as well as family context, were associated with being retired at first interview in the expected ways (Model 2). Women who worked in clerical positions, were eligible to receive an employer-sponsored pension, had access to government- or employer-sponsored retiree health insurance, had with greater household and individual retirement account wealth, were in poor health, and were married had higher odds of being retired at the first interview compared to being in the labor force. Women with more stable work histories, whose primary job was a service occupation, with higher household incomes, and whose husband was working for pay were less likely to be retired and were more likely to be in the labor force.

Adjusting for these forms of life course capital did not substantively alter the racial/ethnic differences in the pattern of the odds of being retired at the first interview. In fact, for Hispanic women the odds of being retired were almost identical to those identified in Model 1. However, the odds of Black women being retired were somewhat higher once we adjusted for these factors—especially longest occupation and wealth (models not shown). Although younger Black women were still less likely to be retired than White women, and older Blacks more likely, the cross-over in odds occurred at age 56 instead of 65, more similar to the odds of Hispanic women in Model 2.

Turning to the models for being work-disabled, we found that both Black and Hispanic were more likely to be work-disabled than Whites at first interview. Specifically, minority women were about 65% more likely than Whites to be work-disabled relative to being in the labor force (Model 1). Although age positively predicted being work-disabled, we did not find evidence of race-specific age patterns in the baseline model.

A number of factors indicative of a lack of life course capital were positively associated with the odds of being work-disabled at first interview (Model 2). Women with less stable work histories, who were not enrolled in an employer-sponsored pension program, with

government or other health insurance, who rated their health of poor, and had greater functional limitations had higher odds of being work-disabled. We also found that women who were employed primarily in service occupations and those with more dependent children in the household were actually less likely to be work-disabled. It is interesting that women with access to employer-sponsored health insurance after leaving that job, a key resource for retirement (Rogowski & Karoly, 2000), and who had greater nonhousing and individual retirement account wealth also had significantly higher odds of being work-disabled at the first interview.

Once we accounted for these differences, the higher odds of Black and Hispanic women being work-disabled were reduced but not eliminated, with the caveat that older Black women became significantly more likely to be work-disabled than either their White or Hispanic counterparts. In models not shown, we found that lower educational attainment, overrepresentation in service and labor-intensive occupations, and lower household income contributed to the higher odds of both Black and Hispanic women being work-disabled relative to Whites. Lower employer-sponsored pension or health insurance coverage was also associated with Hispanic women's elevated odds of work disability; however, greater access to these resources among Black women kept their odds of being work-disabled from being even larger. Controlling for their lower socioeconomic position was most responsible for reducing the odds of being work-disabled for Hispanic women, whereas adjusting for their poorer health led to the greatest reduction in the odds for Black women (models not shown).

Overall, our cross-sectional findings supported our general expectation that Black and Hispanic women would be more likely to be work-disabled compared to White women, and this stemmed from their lower levels of human, economic, and health capital. Indeed, although we do not show the comparison between the odds of being retired and being work-disabled, it is worth noting that several findings reinforced our hypothesis that disadvantaged women would be more likely to be identified as work-disabled at the first interview. Specifically, compared to being retired, women with less human capital, without access to an employer-sponsored pension or health insurance, with less household wealth, who were divorced or widowed, and who were in worse health were significantly more likely to be work-disabled.

In contrast to the results for being work-disabled, our expectations about racial/ethnic differences in being retired at the first interview were not supported. Despite the fact that the association with most life course indicators was as anticipated, net of these effects, Black and Hispanic women were less likely to be retired than White women at younger ages but more likely to be retired at older ages. Aside from a true racial/ethnic difference in age-specific retirement schedules, the reason for this age patterning is unclear. One possibility is that Black and Hispanic women were more likely than Whites to reenter the labor force after exiting at younger ages and thus were more likely to be observed working for pay in the cross-section. Unfortunately, we were unable to evaluate this possibility in the present study.

Women's Transitions Out of the Labor Force

Slightly less than two thirds of our sample was in the labor force at first interview, and it was these women that we observed prospectively to determine racial/ethnic differences in the risks of exiting via retirement, work disability, and death. Examining the observed proportion of person-intervals that ended (i.e., right-censored) in each of these competing pathways indicated no racial/ethnic differences in the proportion of women retiring (17%) or dying (1%) in the labor force; however, similar to our cross-sectional findings, about twice as many Black and Hispanic women (2%) as Whites (1%) became work-disabled (not shown). Of course, these are crude rates. We present the age and life course capital adjusted risks estimated from discrete-time hazard models in Table 3.

From employment to retirement—Consistent with prior studies (Flippen, 2005; Flippen & Tienda, 2000; Pienta et al., 1994), although contrary to our hypothesis, we did not find any significant racial/ethnic differences in the risk of retirement. The overall age-specific risks followed a slight S-curve—with the hazard of retirement increasing exponentially at a decelerating rate (not shown). We observed spikes in the risk at the Social Security eligibility ages, with women aged 62 and 65 about 60% more likely to retire than expected from the overall age pattern (see Table 3, Retirement Model 1).

Although only marginally statistically significant, it is worth noting that Hispanic women were about 53% more likely to retire than White women ($p = .07$). In analyses not shown, we found that Hispanic women's slightly elevated retirement rates were largely attributable to their lower labor force attachment—specifically being unemployed and having exited previously. These findings were indicative of the tenuous position that older Hispanic women hold in the labor market (Flippen, 2005).

Adjusting for differences in human, economic, and health capital and family context did not reveal any racial/ethnic differences in women's risk of retirement (Retirement Model 2). Women who had little to gain financially from continued labor force participation (e.g., those with less than a high school education, who worked in sales or as a laborer, and who had weak ties to the labor force) as well as those who held or had access to nonwage financial resources (e.g., those who were eligible for an employer-sponsored pension, had retiree health insurance, worked in large firms, received an early retirement incentive, had more wealth, or were married) had higher age-specific risks of retirement. Women in poor health also faced elevated risks of retirement, likely because their health was a barrier to continued participation. Finally, women whose husbands were retired and those without dependent children were more likely to retire. This pattern of results was largely consistent with prior research (Flippen & Tienda, 2000; Mutchler et al., 1999; Szinovacz et al., 2001; Warner & Hofmeister, 2006).

From employment to work disability—Black women had 2.6 times and Hispanic women 2.2 times the risk of exiting the labor market via work disability compared to Whites (see Table 3, Work Disability Model 1); these effects were not significantly different from one another (comparison not shown). These HRs translated into approximately a 70% greater probability of Black and Hispanic women being work-disabled. The age-specific risk

of work disability was also slightly curvilinear, with the likelihood of becoming work-disabled initially rising up to age 56 and then declining (not shown). The risk of work disability was about 70% lower than expected at the Social Security early eligibility age of 62.

Consistent with our cross-sectional findings, we found that women who lacked human, economic, and health capital, as well as those in disadvantaged family circumstances, had higher risks of work disability. Women who had less than a high school education, had more tenuous attachments to the labor force, had government-sponsored health insurance, worked in large firms, were offered financial incentives by their employer to retire, had poorer self-rated health and more functional limitations, and were divorced or never married or had a husband who was disabled had higher age-specific risks of work disability. However, having employer-provided health insurance that continued into the retirement years increased the risk of exiting via work disability by 7.1 times. By contrast, nonwage financial resources were relatively inconsequential in the full model, although having a working husband increased the risk of women exiting via work disability. Of course, part of the reason that financial and pension indicators were not associated with work disability is that women with access to the forms of capital were more likely to exit via retirement (cf. the coefficients between Retirement Model 2 and Work Disability Model 2). These findings underscored the role of poor health in women's work disability exits.

Indeed, minority women's poorer health principally contributed to their higher rates of work disability relative to Whites, as expected. Accounting for differences in all of the life course capital measures (Work Disability Model 2) reduced the risk of work disability for Black women by about 43% (from 2.639 to 1.506) and for Hispanic women by about 60% (from 2.202 to 0.881). In models not shown, we found that minority women's lower health alone accounted for about 30% of their elevated work disability risks. Socioeconomic inequality explained the remainder of the difference. For Hispanic women, weak attachment to the labor force, lower education, and less advantageous job characteristics were key, whereas for Black women it was lower levels of nonhousing and retirement wealth. It is important to emphasize that although the reduction in effect size between Models 1 and 2 resulted in Hispanics and Whites facing similar risks, Black women remained marginally ($p = .08$) more likely to become work-disabled.

From employment to death—At conventional levels of statistical significance, White, Black, and Hispanic women faced similar risks of dying in the labor force (see Table 3, Death Models 1 and 2). Generally, the risk of death was associated with factors indicative of financial vulnerability, characteristics that perhaps keep women working out of necessity. Women with unstable work histories and low household incomes had an increased risk of mortality, as did those who relied on government health insurance and who worked at smaller firms (which are less apt to have benefits). Not surprisingly, having worse health also increased the risk of death while in the labor force (and accounted for the elevated risk with age; models not shown).

However, because we observed few deaths ($n = 124$) given that our prospective sample was relatively young, the power to detect racial/ethnic differences in mortality was relatively low.

Indeed, there was some indication of a trend ($p < .10$) toward racial/ethnic differences in the risk of dying in the labor force. Our findings suggested that Black women were 60% more likely than both White and Hispanic women to die in the labor force (Death Model 1; comparison between Blacks and Hispanics not shown), although this difference was accounted for by differences in life course capital (Death Model 2). For Black women specifically, in models not shown, we found that the absence of nonhousing wealth—which increases the risk of exiting via retirement—and poorer health contributed to their greater risk of death in the labor force. It is interesting that once we accounted for these very forms of life course capital, Hispanic women were somewhat less likely to die in the labor force; it was primarily the low household income of Hispanic women, which served as a powerful disincentive to continued paid work and resulted in relatively greater pressures to retire, that suppressed this lower risk of death (model not shown). That said, we must urge caution in interpreting these findings given the small number of events.

Discussion

This study is among the first to conceptualize and measure women's diverse labor force exit pathways as dynamic life course processes unfolding over extended periods of time. Using data from the HRS, we examined racial/ethnic differences in the labor force behavior of women aged 50 to 80. Although prior studies have documented racial/ethnic differences in men's later life labor force behavior, this study, in tandem with prior research (e.g., Belgrave, 1988; Flippen, 2005; Flippen & Tienda, 2000; Gibson, 1991), is an important step toward identifying such differences among women. Overall, findings from this study show that the lives of minority and White women evolve in different ways with respect to education, financial resources, health, and work and family histories, and these differences result in racial/ethnic disparities in labor force withdrawal pathways.

As hypothesized, work disability was a prominent pathway out of the labor force for both Black and Hispanic women, albeit for different reasons. The age-specific risk of work disability was about 70% higher for Black and Hispanic women than for Whites. Differences in economic resources and health contributed to, but did not fully explain, the higher work disability rates of Blacks. By contrast, Hispanic women's higher risk of work disability stemmed from not only their poorer health but also their tenuous position in the labor market (Flippen, 2005). There is also some indication that disparities in economic and health capital also contribute to an elevated risk of death for Black women as well. Contrary to our hypothesis, although consistent with prior studies (Flippen, 2005; Flippen & Tienda, 2000; Pienta et al., 1994), we did not find any significant racial/ethnic differences in the age-specific risk of retirement.

However, the cross-sectional findings suggest that it would be erroneous to conclude that there are no significant racial/ethnic differences in retirement because Black and Hispanic women were slightly less likely to be working for pay at the first interview. Among women out of the labor force, White women were more likely to be retired, whereas Black and Hispanic women were significantly more likely to be work-disabled. Thus, differences in labor force exit behavior had already emerged by midlife, the outcome of which was the

disparity in labor force status at the baseline interview when respondents were in their mid-50s.

Our findings for women parallel those of Hayward and colleagues (1996) for older men, who stated that "retirement is more of a White experience than a Black experience, while the reverse is true with regard to [work] disability" (p. S9). To this, we would add that Hispanic women also experience higher risks of becoming work-disabled. In sum, findings from both the cross-sectional and prospective analyses suggest that women of color are especially vulnerable to involuntary labor force exits, be they health related or due to labor market disadvantage, an outcome of inequality across the life course (Belgrave, 1988; Hayward et al., 2000; Kelley-Moore & Ferraro, 2004; Newman, 2003; Oliver & Shapiro, 1997; Schoenbaum & Waidmann, 1997).

Although our study has several notable advantages over previous studies, several issues remain. First, our cross-sectional analyses show that racial/ethnic differences in women's labor force status were present at the first interview, when respondents were in their mid-50s, temporally distant from the usual retirement observation "window" that has been largely defined by the career experiences of White men and institutionalized by the age-graded benefit schedules of government and employer pensions (Calasanti, 1996; O'Rand, 2005). Our findings demonstrate that racial/ethnic inequalities in labor force status emerged in midlife or even earlier, before women were sampled for the HRS. By implication, researchers must be mindful of such differential left-censoring in both data collection strategies and analyses of outcomes related to later life work/retirement behavior, such as retirement income, where statistical correction may be necessary (Hogan & Perrucci, 2007). Further studies with middle-aged samples are necessary to determine how and when these heterogeneities emerge; our cross-sectional models are only suggestive of the factors that may be implicated.

Second, our results show that poor health and fewer economic resources partially accounted for Black women's greater likelihood of being work-disabled and risk of becoming work-disabled. However, even after we accounted for disparities in life course capital, Black women were more likely to be identified as and to become work-disabled. The reason for these higher rates is unclear. Perhaps, as Gibson (1991) suggested, older Black women are more likely to adopt the disabled role—although other research suggests that once-work-disabled Black women face elevated mortality risks indicative of truly poorer health (Warner et al., 2007). Alternatively, it may be that deficits in other resources that we were unable to measure, such as psychological well-being, contribute to these higher rates. Further research is necessary to investigate these possibilities.

Third, this study measured retirement as a labor force exit where the respondent did not report a health problem that interfered with the ability to work for pay (Hayward et al., 1996). However, retirement is an amorphous concept; it may signify, for example, the simple cessation of paid work, a reduction in work hours, the end of the primary career job, the receipt of a pension, self-identification, or combinations thereof (Ekerdt & DeViney, 1990). Additional research is needed to determine how alternative definitions of retirement would further reveal racial/ethnic disparities in women's labor force behavior.

Fourth, this study examined racial/ethnic inequality in women's labor force exits. Yet other processes govern the end of the work career as well. Specifically, women's labor force experiences in later life are a function of not only their exiting behavior but also their reentry behavior. Given their socioeconomic and health disadvantages relative to Whites, we would expect higher rates of reentry among Black and Hispanic women. However, the present analysis did not enable us to evaluate this prospect: Exit and reentry are distinct transitions, and there is no reason to assume that their predictors are identical. Thus, further research is needed to examine racial/ethnic differences in reentry, what accounts for such differences, and if such differences can help explain our cross-sectional finding that Black and Hispanic women are less likely to be retired than Whites in their 50s, but more likely to be retired later in life, as we discussed previously.

Finally, although we made efforts to oversample racial/ethnic minorities, the HRS contains a relatively small number of Hispanic respondents, which limited our ability to detect significant differences between groups. Future analyses and additional data collection efforts are needed to verify the labor force behavior we documented for older Hispanic women.

These limitations notwithstanding, our analysis indicates that labor force dynamics of older women are shaped by their social location, as White, Black, and Hispanic women exit the labor force via divergent pathways. Differences in health and financial resources between White and Black women lead to higher rates of work disability among Blacks. The tenuous position of Hispanic women in the labor market and their poorer health underlie their higher likelihood of work disability and contribute to a slightly elevated (though not statistically significant) rate of retirement.

This study has significant implications for how researchers conceptualize women's labor force exits. Specifically, our findings suggest that analyses that rely solely on cross-sectional labor force participation rates or self-identification, or that do not differentiate between modes of exit, obscure significant racial/ethnic differences in labor market patterns. Retirement and work disability are not identical or interchangeable labor force exit processes but rather have distinct sets of risk factors and are experienced to different degrees across racial/ethnic groups. Distinguishing between alternative pathways out of the labor force thus provides additional insight into racial/ethnic differences in women's labor force behavior.

Moreover, our findings are relevant for the current debate over old-age economic support. Social Security retirement benefits are a critical source of financial support in later life, especially for women, and the projected increase in the number of beneficiaries has sparked a great deal of concern over the solvency of the Social Security system. In response to this concern, Rix (2001) outlined a number of potential policy remedies aimed at increasing labor force participation among elders in an effort to maintain the solvency of the system. Yet such policies may have disparate impacts on the lives of women, minorities, the poor, and individuals in ill health (Flippen, 2005; O'Rand, 2005; Rix, 2001). For example, O'Rand (2005) argued that age-based policies, such as proposals to further increase the minimum age of eligibility for Social Security retirement benefits, are based more on institutional schedules than individuals' productive capacities and economic well-being, and that they ignore health and economic disparities that emerge earlier in life and result in very diverse

aging experiences. Because racial/ethnic minorities are in poorer health, have shorter life expectancies, and have fewer economic resources than their White counterparts, raising the minimum age of eligibility for retirement benefits would likely result in people of color having less access to retirement, and being more likely to have to manage health problems while working, compared to Whites (Hardy, 2006). Furthermore, our results suggest that gains in the solvency of Social Security achieved through raising the age of eligibility for retirement benefits are likely to be offset by increases in work disability claims due to the higher rates of work disability among Blacks and Hispanics in tandem with the projected increase in the number of older racial/ethnic minorities (Burr & Mutchler, 2007). Future policies that aim to increase labor force participation among elders should consider the possibility of such unintended consequences, as many women—especially women of color —confront significant barriers to later life employment, especially in terms of poor health, yet lack the economic capital necessary to exit the workforce voluntarily.

Acknowledgments

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Table 1

Model Variables, Coding, and Characteristics at First Interview (Means and T-Tests), by Race/Ethnicity (Weighted Estimates)

Variables	Description and Coding	Whites	Blacks	Hispanics	Total
Baseline Labor Force Status					
In the labor force[a]	1 = in the labor force (ref)	0.64	0.62	0.62	0.64
Retired[abc]	1 = retired	0.30	0.24	0.26	0.29
Work-Disabled[ab]	1 = work-disabled; see text for details	0.05	0.13	0.12	0.07
Age[ab]	Age in years past 50	7.99	8.13	7.03	7.95
Education					
Less than high school[abc]	1 = less than high school	0.17	0.37	0.57	0.21
High school[abc]	1 = high school or equivalent (ref)	0.42	0.32	0.19	0.40
Some college[abc]	1 = at least some college	0.41	0.31	0.23	0.39
Labor Force Attachment					
Self-employed[ac]	1 = self-employed	0.10	0.05	0.08	0.09
Part-time	1 = working less than 35 hr/ week	0.19	0.16	0.18	0.19
Unemployed	1 = unemployed and looking for work	0.04	0.02	0.03	0.02
Prior exit	1 = previously observed to exit the labor force	0.04	0.03	0.04	0.04
Job Tenure and Stability[abc]	Number of years worked divided by the number of jobs worked (up to 3); higher scores indicate greater stability	18.56	20.51	16.77	18.67
Longest Occupation					
Professional/managerial[abc]	1 = professional/managerial (ref)	0.29	0.21	0.12	0.28
Sales[a]	1 = sales	0.11	0.05	0.07	0.10
Clerical[a]	1 = clerical	0.28	0.14	0.17	0.26
Service[abc]	1 = service	0.13	0.37	0.29	0.17
Labor[abc]	1 = laborer	0.11	0.17	0.28	0.13
Missing[a]	1 = information on longest job is missing	0.08	0.06	0.07	0.07
Job Benefits					
Employer pension					
Enrolled[abc]	1 = enrolled in employer pension plan	0.39	0.41	0.29	0.39
Eligible to receive[abc]	1 = eligible to receive or receiving pension	0.16	0.18	0.11	0.16
Health insurance					
Uninsured[abc]	1 = no health insurance identified (ref)	0.28	0.29	0.46	0.29
Government	1 = government provided insurance	0.23	0.31	0.21	0.23
Private[ab]	1 = individual private pay insurance	0.08	0.05	0.05	0.07
Employer[ac]	1 = past or current employer provided insurance	0.25	0.30	0.19	0.25

Variables	Description and Coding	Whites	Blacks	Hispanics	Total
Employer Retiree[abc]	1 = past or current employer provided insurance that continues in retirement	0.15	0.19	0.09	0.15
Other[ab]	1 = some other source of insurance, including from a spouse	0.25	0.13	0.12	0.23
Job Structure					
Large Firm[ac]	1 = work for a firm with 500 or more employees	0.07	0.11	0.06	0.08
Firm Size Missing[ab]	1 = firm size missing	0.05	0.07	0.09	0.05
Early Retirement Incentive[cc]	1 = offered a financial incentive to retire early	0.03	0.02	0.01	0.03
Financial Resources					
Household income (Ln)[abc]	Total of household income from all sources, adjusted for couple status (in constant dollars)	3.16	2.72	2.62	3.09
Non-housing wealth (Ln)[ab]	Net value of non-housing assets, adjusted for couple status (in constant dollars)	3.96	3.54	3.60	3.89
Retirement savings value (Ln)[ab]	Individual retirement account or similar retirement savings plan value , adjusted for couple status (in constant dollars)	1.51	0.35	0.45	1.33
Health					
Self-rated health[abc]	0 = excellent, 1 = very good, 2 = good, 3 = fair, 4 = poor	1.42	2.07	2.12	1.53
Number of chronic conditions[ac]	Count of doctor diagnosis with hypertension, heart disease, stroke, non-skin cancer, diabetes or chronic lung disease (0-6).	0.85	1.18	0.81	0.89
Number of functional limitations[ab]	Sum of reported difficulty walking one block, climbing a flight of stairs, lifting 10 pounds, pushing or pulling a large item, and picking up a dime from a table, divided by the number of valid responses higher scores indicate greater limitations (0-5)	1.00	1.43	1.23	1.05
Family Characteristics					
Marital status					
Married[abc]	1 = married (ref)	0.70	0.40	0.61	0.66
Divorced[abc]	1 = divorced or separated	0.15	0.31	0.23	0.17
Widowed[ac]	1 = widowed	0.12	0.21	0.12	0.13
Never married[abc]	1 = never married	0.03	0.08	0.05	0.05
Husband's work status					
Unmarried or Husband Retired	1 = unmarried or married respondent's spouse retired (ref)	—	—	—	—
Disabled[a]	1 = respondent's spouse is disabled	0.05	0.06	0.06	0.05
Works[ac]	1 = respondent's spouse is in the labor force	0.49	0.24	0.43	0.46
No. of Children 25[abc]	Number of children under 25 in household (0-2 or more)	0.21	0.24	0.43	0.23
N of respondents (unweighted)		5,504	1,231	500	7, 235

Notes: Means for binary variables can be interpreted as the proportion of the sample coded 1 on that indicator. Welch-Satterthwaite T-Tests computed for difference in means with unequal variances.

[a] Means for Whites and Blacks are significantly different, $p < .05$ (two-tailed test).

[b] Means for Whites and Hispanics are significantly different, $p < .05$ (two-tailed test).

[c] Means for Blacks and Hispanics are significantly different, $p < .05$ (two-tailed test).

Table 2

Odds Ratios for Multinomial Logit Models Predicting Women's Labor Force Status at First Interview Relative to Being in the Labor Force (Weighted Estimates)

	Retirement		Work Disability	
Variable	**Model 1**	**Model 2**	**Model 1**	**Model 2**
Race/ethnicity[a]				
Black	0499***	0.652†	1.857**	0.806
Hispanic	0.697	0.610†	1.840*	0.987
Age***	1.171***	1.078***	1.039***	0.897***
Age × Black	1.048**	1.068**	1.034	1.084**
Age × Hispanic**	1.058*	1.071*	1.025	1.034
Education[b]				
Less than high school		0.992		1.194
Some college*		0.963		0.805
Job tenure and stability		0.988***		0.979***
Longest occupation[c]				
Sales		0.873		1.116
Clerical		1.305*		1.266
Service		0.638***		0.559*
Labor		1.077		1.355
Job benefits				
Employer pension				
Enrolled**		0.146***		0.304***
Eligible to receive***		1.863***		0.762
Health insurance[d]				
Government***		2.648***		7.394***
Private		0.807		0.580†
Employer		0.117***		0.215***
Employer retiree		6.337***		6.925***
Other		1.637***		1.892***
Financial resources				
Household income (ln)		0.604***		0.623***
Non-housing wealth (ln)**		1.798***		1.250†
IRA value (ln)		1.080**		1.172**
Health				

	Retirement		Work Disability	
Variable	**Model 1**	**Model 2**	**Model 1**	**Model 2**
Self-rated health ***		1.113 *		2.168 ***
No. of chronic conditions		1.076		1.147 *
Functional limitations ***		1.141 ***		2.231 ***
Family characteristics				
Marital status [e]				
Divorced **		0.312 ***		0.619 [†]
Widowed		0.637 **		0.931
Never married		0.508 **		0.876
Husband's work status [f]				
Disabled		0.835		1.243
In the labor force		0.625 ***		0.824
No. of children 25 **		0.990		0.650 **
Intercept	0.1167 ***	0.160 ***	0.071 ***	0.014 ***
–2 log likelihood	10,551.8	7,067.1	10,551.8	7,067.1

Notes: $N = 7,217$ women—18 women with nonpositive sample weights were excluded. Although equivalent models for being retired or work-disabled were estimated simultaneously, the presentation of results parallels the discussion in the text and the hazard model results in Table 3. Model 2 also includes a control variable for missing information on longest occupation. IRA= individual retirement account.

[a] White is the reference category.

[b] High school graduate or equivalent is the reference category.

[c] Professional/managerial occupation is the reference category.

[d] Uninsured is the reference category.

[e] Married is the reference category.

[f] Unmarried or husband retired is the reference category.

[†] $p < .10$

[*] $p < .05$

[**] $p < .01$

[***] $p < .001$ (all two-tailed).

Table 3

Hazard Ratios for Competing-Risks Models Predicting Women's Transitions Out of the Labor Force, Ages 50 to 80 (Weighted Estimates)

	Retirement		Work Disability		Death	
Variable	**Model 1**	**Model 2**	**Model 1**	**Model 2**	**Model 1**	**Model 2**
Race/ethnicity[a]						
Black	1.012	1.046	2.637***	1.505†	1.476†	1.133
Hispanic	1.149†	1.077	2.198**	0.879	0.590	0.415†
Age parameters						
Age	1.134***	1.080***	1.260*	1.266*	1.057**	1.021
Age^2	0.998**	0.999	0.982**	0.981***		
Age 62	1.559***	1.591***	0.317**	0.311**		
Age 65	1.519***	1.501***				
Education[b]						
Less than high school		1.131*		1.701*		0.987
Some college		0.942		1.310		0.864
Longest occupation[c]						
Sales		1.197*		1.514		0.916
Clerical		1.043		1.146		1.032
Service		0.998		1.138		0.843
Labor		1.181*		1.233		0.818
Labor force attachment						
Self-employed		1.048		1.072		0.922
Part time		1.443***		1.332		1.038
Unemployed		2.471***		5.272***		1.985
Prior exit		1.482***		1.746*		0.522†
Job tenure and stability		1.001		0.984†		0.979*
Job benefits						
Employer pension						
Enrolled		0.923		1.012		0.753
Eligible to receive		1.273***		0.899		0.878
Health insurance[d]						
Government		1.006		1.601		1.825*
Private		0.928		1.009		1.244
Employer		0.675**		0.181*		0.875
Employer retiree		1.417†		7.113*		2.117

Variable	Retirement		Work Disability		Death	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Other		1.299**		0.948		
Job structures						
Large firm		1.168*		1.665*		0.431†
Early retirement incentive		1.942***		3.704**		—
Financial resources						
Household income (ln)		0.946†		0.927		0.702*
Nonhousing wealth (ln)		1.111**		0.989		1.038
IRA value (ln)		1.060***		0.921		1.137*
Health						
Self-rated health		1.124***		1.741***		1.488**
No. of chronic conditions		1.036		0.945		1.391**
Functional limitations		1.088***		1.441***		1.193*
Family characteristics						
Marital status [e]						
Divorced		0.716***		2.545**		1.383
Widowed		0.786***		1.712		1.394
Never married		0.741*		2.461*		1.498
Husband's work status [f]						
Disabled		0.901		2.041†		1.121
In the labor force		0.864*		2.175*		1.181
Children age 25		0.870*		0.989		1.159
Intercept	0.033***	0.021*	0.003***	0.000***	0.003***	0.001***
Number of events	2,724		149		124	
–2 log likelihood	17,696.3	17,156.5	1,710.5	1,447.1	1,569.3	1,434.7

Notes: $N = 16{,}045$ person-intervals, except for models predicting disability transitions, which were restricted to events occurring before age 65 where $N = 14{,}986$ person-intervals. Models 2 also include controls for missing information on self-employment, longest occupation, and firm size. IRA = individual retirement account.

[a] White is the reference category.

[b] High school graduate or equivalent is the reference category.

[c] Professional/managerial occupation is the reference category.

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† $p < .10$

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 $p < .05$

**
 $p < .01$

***
  $p < .001$ (all two-tailed).