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Abstract

Job-changing among late-career workers increased steadily from the 1980s through the mid-2000s before declining somewhat in recent years. This study asks how the rise in job-changing – which seems largely voluntary – affects retirement timing and whether this effect varies by a key measure of socioeconomic status: educational attainment. Workers presumably change jobs voluntarily to improve their well-being through gains in the economic or non-economic rewards of work or better working conditions. As a result, workers switching jobs late in their careers might retire later than they otherwise would have. Retiring later would be especially beneficial to less educated workers, who are generally less prepared financially to retire than better educated workers. Changing jobs, however, sheds the protection that tenure provides against involuntary job loss, which often leads to earlier retirements for older workers. This study seeks to understand which effect dominates, while dealing with the fact that job changing could be endogenous to retirement – that workers willing to bear the cost of a job search could intend to remain in the workforce longer. The analysis does so by controlling for each individual's planned retirement age. The results show that the benefits of job changing are widely distributed and are associated with later retirements for men and women and for better and less educated workers.

Introduction

Job-changing among late-career workers increased steadily from the 1980s through the mid-2000s before declining somewhat in recent years.[1] In 1983, 35 percent of employed males ages 58-62 were in a job they had started after turning 50. By 2004, that number had increased to 52 percent before declining to 45 percent by 2015. Over the same time period, and for a variety of reasons – increases in the Social Security Full Retirement Age, longer life expectancies, rising out-of-pocket medical expenditures, and the decline of defined benefit pensions – workers have needed to work longer to ensure an adequate retirement income. The need to work longer is especially acute among the less educated, who tend to retire early (Venti and Wise 2015). This raises the question: has the increase in late-career mobility made working longer easier or harder? Furthermore, how does the effect of mobility differ by education?

The rise in job-changing seems largely voluntary, as the share of older workers losing their jobs due to plant closings or shift elimination has been relatively flat since the early 1980s. Workers presumably change jobs voluntarily to improve their well-being, to gain greater economic or non-economic rewards or better working conditions, either of which could induce them to stay in the labor force longer. On the other hand, workers who change jobs give up tenure and run the risk of a bad employment match, which increases the likelihood of displacement (Munnell, Sass, and Zhivan 2009). This paper explores which effect dominates.

To assess the effect of job changing on the ability to work longer, this paper uses data from the *Health and Retirement Study* (HRS) to estimate a model of retirement timing that includes a voluntary job change between ages 50 and 60 as an independent variable. The paper then estimates probit regressions for not retiring by age 65 and by 67 – meant to reflect remaining in the labor force to the age of Medicare eligibility and to Social Security's original and future Full Retirement Ages. However, the potential endogeneity of mobility poses an analytical problem. Workers who change jobs voluntarily have made a choice to switch. Late-career workers might be willing to pay for search and transition costs only if they think their career is going to last long enough to make incurring these costs worthwhile. Any association between mobility and retirement ages could reflect this difference in worker desires and not the

[1] Authors' calculations from U.S. Census Bureau, *Current Population Survey* (1983-2014).

effect of mobility *per se*. The project addresses this issue by controlling for a worker's planned retirement age, as indicated in their initial HRS survey, prior to any observed job change.[2]

The results indicate that, on average, workers who change jobs between ages 50 and 60 are significantly more likely to still be working by 65 and 67 in comparison to those who stay in the job they held at age 50.[3] The effect ranges from an increase in the likelihood of being in the labor force of 8-10 percentage points, depending on the retirement age and controls used. The finding is robust to the inclusion of planned retirement age as a control. Interestingly, the finding that job changes lead to longer careers is also robust to the inclusion of controls for the relative quality of the new job, which is measured by changes in earnings, health insurance, physicality and stress. This leaves the mechanism by which job changes lengthen the time to retirement open for future research, since it seems that workers transitioning to "better" or "worse" jobs along these dimensions still work longer on average. Finally, the finding is robust across gender and education, although workers with a high school degree or less seem to get a smaller boost than those with at least some college education.

The paper is organized as follows. The next section discusses the theory behind the job mobility of older workers and discusses the literature on the topic. The third section explains the empirical approach, the fourth the data, and the fifth the results. The paper concludes that mobility is associated with working longer for the sample as a whole. For those who can make a voluntary job-change, change is associated with a large and statistically significant increase in the likelihood of remaining in the labor force longer, regardless of an individual's educational attainment.

Theory and Literature

Mortensen (1986) lays out a basic model of on-the-job search in which search has a cost, and higher intensity searches have higher costs. In the model, job offers arrive exogenously at some rate that is positively correlated with the intensity of search. The value of on-the-job

[2] The study also controlled for the potential endogeneity of mobility and retirement using an instrumental variable approach, with tenure at age 50 as the instrument. The results were similar to those obtained using the worker's initial planned retirement age, which is a simpler and more intuitive control. The results, not shown here, are available upon request.

[3] This result is similar to Munnell, Triest, and Jivan (2004), which found that switching jobs was associated with people reaching their planned retirement age.

search is the potential of finding a "better" job for the remainder of the worker's career. The model suggests that older workers will be less mobile than younger ones because of their higher wages and the shorter amount of time left in their careers. Groot and Veberne (1997) also point out that a better job for older workers could be a job with working conditions that become more attractive with age, such as reduced physical demands. The idea that working conditions, not compensation, may trigger voluntary mobility for older workers motivates some of the controls used later in this study.

The Mortensen model has several relevant implications. First, a lower cost of searching for new employment will be correlated with higher rates of job mobility, all else being equal. Recent literature suggests the advance of technology has lowered search costs, contributing to the increase in mobility (Stevenson 2009). If search costs continue to fall, leading to more mobility, the results of this paper will indicate its likely effect on retirement timing.

Second, the Mortensen model indicates how job mobility is likely to be endogenous to retirement timing. Because workers reap the benefit of the new job only as long as they work, the longer they anticipate remaining in the labor force the more they would be willing to search, increasing their likelihood of finding a new job. Older workers who anticipate retiring early will be less likely to search, leading to a positive correlation between mobility and retirement age. The paper uses each worker's planned retirement age to control for this endogeneity.[4]

Understanding the relationship between retirement and voluntary late-career job-changing is important because the secular rise in job-changing since the early 1980s seems largely voluntary. Significant work has been done on the effect of *involuntary* job loss at older ages, on outcomes like reemployment, wealth, and retirement timing. This literature finds that, after an involuntary job loss, older workers are much less likely to find a new job (Chan and Stevens 2001); if reemployed, they are more likely to have significantly lower wages than in their original job and are twice as likely to retire by any given age (Chan and Stevens 2004). Involuntary job loss, unsurprisingly, seems to be universally bad for older workers.

Workers who voluntarily change jobs, by contrast, presumably do so to improve their well-being. After moving, they generally report lower stress and greater job satisfaction, albeit

[4] To further control for the potential endogeneity of mobility, an instrumental variable approach using age 50 tenure as the instrument for mobility was also attempted. Because the results were similar to those when simply controlling for an age 50 planned retirement, the results are not shown here but are available upon request.

with a decrease in total compensation (Johnson and Kawachi 2007; Johnson, Kawachi, and Lewis 2009). This result is consistent with Groot and Veberne (1997), which finds that older workers are primarily moving to jobs that offer better working conditions, not higher wages. A welfare-improving job change suggests that mobile workers could have longer careers. Moving to a less stressful and less physically demanding job could especially lengthen the careers of less-educated workers, who are more likely to have jobs that are harder to do as they age (Belbase, Sanzenbacher, and Gillis 2015). A hidden cost, however, could be a reduction in job security, as tenure protects older workers against involuntary job loss (Munnell et al. 2006; Farber 2010) and changing jobs risks a bad match. This cost may be especially acute for less educated workers who, are more vulnerable to displacement (Kalleberg 2010). The relationship between voluntary job changing and retirement timing is thus an empirical question, and the relationship could be different for better and less-educated workers.

Empirical Approach

To estimate the effect of voluntary mobility on retirement timing, this paper takes a reduced form approach. In theory, the retirement decision should be driven by health, the disutility of work, the utility of leisure, and the household's ability to finance retirement. This study controls for workers' health, the characteristics of their initial and new employment, and the ratio of their wealth to income as they approach retirement. As in most such studies, direct controls for the utility of leisure are absent. The study also controls for socioeconomic characteristics, specifically gender and educational attainment, with "less educated" defined as having a high school education or less and "more educated" defined as having at least some college experience – a division that divides the sample into two roughly equal educational attainment groups.

The project estimates probit regressions where the dependent variable is an indicator for not retiring before the specified ages relevant to Social Security and Medicare: age 65, Social Security's original Full Retirement Age and the age of Medicare eligibility; and age 67 to capture making it to Social Security's future Full Retirement Age. These specifications are meant to see if mobility reduces or increases the likelihood of not retiring prior to these ages and if the effect of job changing on retirement timing is more pronounced over a longer horizon after the job switch. Within this approach, the paper will estimate three specifications. The first will

control for the standard variables mentioned above and include a dummy for voluntary job change between age 50 and 60. The second will control for the worker's initial planned retirement age to control for the endogeneity of job mobility. The third specification will introduce interactions between the mobility dummy and the characteristics of the individual's new job. This approach allows the identification of relationships between characteristics of a new job and retirement timing, i.e., the effect of switching to a job that now provides (or loses) health insurance, pays higher (or lower) wages, or is less (or more) stressful or physically demanding. The full specification is shown in equation (1):

$$r_{i,a}^{*} = X_i'\beta + W_{i,60}'\gamma + JC_{i,50}'\delta + \alpha_0 V_i + V_i * JC_{i,new}'\alpha + \mu Pl_{i,50} + \varepsilon_i \qquad (1)$$

where $r_{i,a}^{*}$ is the probability of retirement by age a; X_i' is a vector of demographic characteristics including the worker's health at age 60; $W_{i,60}'$a vector of wealth-to-income ratios at age 60; $JC_{i,50}'$ is a vector of the workers job characteristics at age 50; V_i an indicator for voluntary job move; $Pl_{i,50}$ the individual's planned retirement age that is part of specification 2; and $JC_{i,new}'$ controls for the new job characteristics that are part of specification 3. To test whether these relationships are different for different socioeconomic groups, the study will estimate equation (1) separately for men and women and for better and less educated workers, defined as workers having or not having at least some college.

Data

To estimate the empirical specifications laid out in equation (1), the study uses data from waves 1-11 of the HRS, collected biennially between 1992 and 2012. The sample is comprised of individuals from the HRS and War Baby cohorts born between 1935 and 1947. Respondents included in the sample must work for pay and fall between the ages of 50 and 56 in their first wave in the study. Individuals must also participate in the survey until at least age 65 in order to qualify for the age-65 probit regression dependent variables. To identify the relationship between voluntary job changes and retirement timing, the study compares the experience of workers who voluntarily change jobs prior to age 60 to workers who do not change jobs.

Workers who experienced an involuntary separation from their starting wave job are excluded from the sample.[5]

The Great Recession could also affect our results. It did not affect the pattern of job-changing by workers in their 50s: the youngest individuals in the sample turned age 60 in 2007, prior to the onset of the Great Recession.[6] But it likely affected the pattern of retirements. Older workers who changed jobs could be significantly more likely to be dismissed and retire sooner in the sharp cyclic downturn than workers who did not change jobs. The analysis would then indicate that voluntary job-changers are less likely to remain in the labor force to any given age than is "normally" the case. To control for the effect of the Great Recession on the timing of retirements, the study includes a dummy variable that indicates whether the worker turned 65 after the onset of the Great Recession.

The following sections explain the methodologies used to calculate the dependent variables as well as selected independent variables:

Dependent Variables

The dependent variables (retired by age 65 and by age 67) are constructed from the same HRS question. The wave in which a respondent claims to be "fully retired" is marked as his "retirement wave." Because the HRS is a biennial survey, this information is not sufficient to determine the respondent's retirement age. However, once an individual claims to be fully retired, the HRS asks for the actual retirement year. That answer, along with the respondent's birth year, is used to calculate the retirement age, which is used to construct the indicator variables.

Independent Variables

The primary variable of interest for this paper is the indicator for whether a worker voluntarily changes jobs. Workers are classified as job-changers if they leave their starting wave job at any point up to age 60 and begin work with a new employer within the same wave.[7] The

[5] An involuntary job change is defined as a job change due to a layoff, business closing or health reason.
[6] After 2007, most employment separations by workers in their 50s were involuntary. Munnell and Rutledge (2013).
[7] Because of the age structure of the HRS, the job changes observed tend to be toward the latter half of the worker's 50s; the average age of a job mover is 56.5.

job change is considered voluntary if the individual does not leave the starting wave employer for reasons related to a layoff, business closure, or a health issue.

A worker's planned retirement age affects retirement timing, and the Mortensen model suggests that it also affects the likelihood of voluntary job changing.[8] As seen in Table 1, the average planned retirement age of voluntary job changers is six months later than that of workers who remained with their starting wave employer, a difference large enough to be significant at the 10-percent level. It is also a bit less than the average planned retirement age of workers who lose their jobs.

The study identifies changes in job characteristics as positive, neutral, or negative. The variable identifying a change in earnings takes on a value of "-1" if earnings on the new job, in real terms, are at least 10 percent lower; "1" if earnings are at least 10 percent higher; or "0" if earnings changed by less than 10 percent in either direction. The variable identifying a change in health insurance coverage takes on a value of "-1" if the original job had health insurance and the new job did not; "1" if the new job had health insurance but the old job did not; or "0" if there was no change in health insurance coverage

The study uses a similar approach to identify changes in stress and physical demands. The variable identifying changes in stress takes on a value of "-1" if the individual agrees strongly with the statement that their new job is more stressful than their old job, "0" if both jobs were equally stressful, and "1" if the new job is less stressful. The variable identifying changes in physical demands takes on a value of "-1" if the worker said their new job involves more lifting, stooping, or eyesight than their old job, "0" if the new job involves the same amount, and "1" if the new job involves less.

The study controls for various factors other than voluntary job-changing that are likely to influence retirement timing. These factors include demographic characteristics such as health, retirement preparedness as indicated by the ratio of wealth to income at age 60, and the characteristics of the individual's original job: whether it provided health insurance, retiree health insurance, and a retirement plan, as well as the worker's prior earnings, and whether it was a blue-collar job.

[8] Respondents who report "never" or "don't know" when asked about their planned retirement age are excluded from the sample.

One of the more important characteristics determining retirement timing is an individual's health as they approach retirement, which is measured at age 60 in this study. Self-reported health can be used to justify early retirement, so this study instead constructs a health index (as in Dwyer and Mitchell 1998) consisting of the sum of indicator variables for 13 health conditions reported in each wave of the HRS,[9] an indicator that ranges in value from 0 (best health) to 13 (worst health).

The model includes the ratio of household wealth at age 60 to earnings at the original job to control for the effect on the timing of retirement of the household's ability to finance that retirement. Financial wealth is the sum of stocks, bonds, short-term deposits, IRA and defined contribution (DC) retirement plan balances, less any debt the household may have. The model also includes a variable indicating defined benefit (DB) coverage times tenure to reflect the strength of retirement incentives in DB plans.

Descriptive Statistics

Table 1 summarizes both personal and starting job characteristics both for individuals who stayed in their initial job and those who voluntarily chose to leave. It also reports these characteristics for those who left their initial job involuntarily and are excluded from the sample. The personal characteristics of those who stayed and those who changed jobs voluntarily are not very different: the job changers are slightly more educated, are more likely to be non-Hispanic white, and have fewer health conditions. The starting job characteristics for the two groups are quite different. Respondents who stayed with their initial employers had jobs that inspire stability. Their jobs paid more and were more likely to provide health insurance, retiree health insurance, and DB pension benefits. Respondents who stayed with their initial employers also had more tenure. In general, workers who change jobs voluntarily are somewhat more likely to have personal characteristics associated with positive labor market prospects, but their initial

[9] These 13 conditions include eight health conditions and five limitations to activities of daily living. The health conditions include: 1) "high blood pressure with medication"; 2) "diabetes with insulin;" 3) "cancer of any kind, seeing doctor;" 4) "activity limiting lung disease;" 5) "heart condition, taking medication;" 6) "emotional/psychological problems;" 7) "stroke with problems afterward;" and 8) "arthritis with medication." The limitations to activities of daily living are: 1) "needs help bathing;" 2) "needs help getting dressed;" 3) "needs help eating;" 4) "needs help using a map;" and 5) "needs help walking."

jobs are less attractive than workers who stayed with their original employer. Workers who experienced an involuntary job loss are more likely to be less educated and male.

Table 2 reports changes in job characteristics for those who changed jobs, breaking them out separately for men and women and for those with a high school education or less and those with some college. The results show that similar percentages of all four groups voluntarily changed jobs – between 12.6 percent and 14.0 percent. Men who changed jobs were more likely to gain health insurance than lose it; women and more educated workers were more likely to lose health insurance than gain it. In terms of earnings, about 45 percent of job-changers moved to jobs paying at least 10 percent less and about 35 percent moved to jobs paying at least 10 percent more, with less educated workers especially likely to move to a job with lower earnings. Offsetting the losses in compensation, working conditions generally improved. At least twice as many job-changers in all four groups moved to a less stressful than to a more stressful job. A greater share of job-changers also moved to jobs that were less, rather than more, physically demanding, though the differences were much less than the reductions in stress. These findings are consistent with Groot and Verberne (1997) and with Johnson and Kawachi (2007) and Johnson, Kawachi, and Lewis (2009), which found that older workers who change jobs voluntarily move to jobs with lower stress, albeit with a decrease in total compensation.

Table 3 reports the share of job-changers, by gender and educational attainment, who moved to jobs that were clearly better according to our four job characteristics measures (i.e., jobs with no losses in quality and at least one gain); to jobs that were clearly worse (i.e., jobs with no gains and at least one loss); and to jobs that were mixed. The distribution is again reasonably similar for all four groups. In each group, more workers moved to "better" jobs than to "worse" jobs, though a majority moving to jobs with "mixed" characteristics. Somewhat fewer men and less educated workers moved to better jobs and somewhat more moved to worse jobs. Since workers presumably change jobs voluntarily to improve their well-being, changes in our four job characteristics cannot explain why workers move to jobs that are "worse."

Results

Tables 4 and 5 present the relationships between voluntarily changing jobs and the characteristics of the replacement job on the likelihood of remaining in the labor force at ages 65 and 67. Each table shows the results for equation (1) first without any controls for the

individual's planned retirement age or the change in job characteristics. The tables then add the individual's planned retirement age, to control for the potential endogeneity of job changing and retirement; they then add changes in job characteristics for those who change jobs. As discussed above, the job characteristics are positive when the new job is deemed better and negative when the new job is worse. The coefficients indicate how moving to a job characterized as better is associated with the likelihood of remaining in the labor force to the benchmark ages.

Among workers in the sample, 43.9 percent had not retired and were still in the labor force at age 65. For the first specification in Table 4, which does not control for planned retirement ages or the characteristics of a job changer's new job, the results indicate that workers who voluntarily changed jobs in their 50s were 8.3 percentage points more likely to be in the labor force at age 65 than workers who had not changed jobs. Other relationships are consistent with expectations. Having a DB at the worker's starting job increases the likelihood of retiring prior to age 65 at a rate that increases with tenure, as individuals with high tenure and a DB often face a benefit structure that discourages continued work. Having retiree health insurance is associated with an even larger increase in the likelihood of retirement prior to age 65, the age of eligibility for Medicare. Blue-collar employment and poor health are associated with early retirement; mortgage debt, greater educational attainment, and being a man are associated with later retirement.

As indicated in the second column, each one-year increase in the worker's planned retirement age increased the likelihood of remaining in the labor force at age 65 by 3.2 percentage points. Controlling for the worker's planned retirement age, however, does not alter the relationship with a voluntary job change significantly: voluntary job changers are 9.2 percentage points more likely to remain in the labor force at age 65 when controlling for the planned retirement age during their first wave in the sample.[10]

The third column reports the marginal effects of changes in the job characteristics included in the study. Job changing that involves no change in job characteristics – the worker's old and new jobs have similar earnings, stress levels, physical demands, and health insurance coverage – is associated with an 8.3-percentage-point increase in the probability of remaining in

[10] The most striking apparent effect of controlling for the worker's planned retirement age is the sharp reduction in the relationship between a DB pension and retiring early. But this finding is probably due to a strong relationship between having a DB pension and having an early planned retirement age, with a high likelihood of retiring at that age.

the workforce at age 65. For workers who voluntarily changed jobs, factors other than these four characteristics made the new job "better" and extended the careers. The only significant finding on job characteristics is for health insurance. Individuals who switch to a job and gained health insurance were 22.6 percentage points more likely to work to age 65 than workers who switched but did not gain insurance. The coefficients on jobs with lower stress or less physicality were in the expected direction, but insignificant.

Table 5 shows that the main results highlighted above also hold when the benchmark retirement age is moved to 67. Among workers in the sample, 29.5 percent had not retired prior to age 67. Controlling for the worker's planned retirement age and the characteristics of a new job, voluntarily changing jobs between ages 50 to 60 is associated with a 9.7 percentage-point increase in the likelihood of remaining in the labor force to age 67. Relationships between retirement timing and a change in each job characteristic, however, is now weaker; and again, only a change in health insurance coverage has as statistically significant effect.

Table 6 and 7 report of the effect of voluntary job changing on the likelihood of remaining in the labor force at age 65 by gender and by educational attainment. The result reported in Table 4, that job changing is associated with an increased likelihood of remaining in the labor force until age 65, holds for all four groups. For men and women, the relationship between mobility and remaining in the labor force until age 65 is similar before controls for job characteristics are introduced. Voluntarily switching jobs is associated with an increase in the likelihood of remaining in the labor force to that age by 9.3 percentage-points for women and by 10.4 percentage-points for men. When job characteristics are introduced, the result for men is still positive, albeit insignificant, with a gain in health insurance coverage being an especially important predictor of later retirement for men who switch jobs.

The results in Table 7 indicate that, before job characteristic controls are introduced, individuals with a high school education or less see an increase in their probability of working until 65 of 7.4 percent and those with some college see an increase of 11.2 percent. Both increases are significant to at least at the 10-percent level. It seems that, on average, voluntary job changes increase the probability of working longer regardless of education levels. However, once job characteristics are introduced, the effect is positive but insignificant for those with less education, with a gain in health insurance being an especially important predictor of later retirement among these individuals.

Conclusion

Workers presumably change jobs voluntarily to move to a better job, which could induce them to extend their work lives. Switching jobs, however, sacrifices the protection that seniority provides against displacement. This study sought to identify the effect of voluntary mobility on retirement timing and the extent to which the effect is due to changes in four key characteristics of the new job: earnings, health insurance coverage, stress levels, and physical demands.

The results clearly indicate that a voluntary job change is associated with a large and statistically significant increase in the likelihood of remaining in the labor force to older ages, and that this is the case for men and women and for better- and less-educated workers.

Changes in the four job characteristics included in the study also affect the timing of retirement, though not as much as might be expected. Gains in health insurance coverage are especially important for extending the careers of men and of all workers with a high school education or less. But changes in the other three factors did not have a statistically significant effect on the timing of retirement.

This leaves the mechanism by which job changes lengthen the time to retirement open for future research, since it seems that workers transitioning to "better" or "worse" jobs along these dimensions still work longer on average. If improvements in earnings, health insurance coverage, stress levels, and physical demands do not explain the increase in a worker's retirement age following a job change, what else does? Future research should examine the role of softer job characteristics, like a sense of control and the non-economic rewards of work, in keeping workers in the labor force long enough to gain a secure retirement.

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Table 1. *Descriptive Statistics, by Job Change Status*

Variable	All	Non-job changers	Voluntary job changers	Involuntary job losers
Personal characteristics				
At least some college	45.5%	45.3%	51.5%	41.3%
Male	52.3	52.8	49.8	51.7%
Black	16.2	17.1	13.1	12.9%
Hispanic	8.11	8.0	6.3	10.4%
Health Index at starting wave	0.72	0.74	0.64	0.71
Planned retirement age	62.6	62.5	63.0	63.2
Starting wave job characteristics				
Earnings	$52,136	$54,054	$48,047	$43,546
Current DB	42.6%	45.2%	38.5%	29.5%
Current DC	38.3	38.7	34.0	39.4
Health insurance coverage	68.0	69.5	62.5	62.7
Retiree health insurance	45.2	48.3	38.5	32.0
Blue collar	38.4	38.8	33.3	40.3
Tenure	13.4	14.4	9.8	10.4
Number of observations	4,341	3,343	480	518

Source: Authors' calculations from 1992-2012 HRS.

Table 2. *Characteristics of New Job, by Gender and Education*

Variable	All	Women	Men	High school or less	At least some college
Percent who changed jobs	12.6%	13.2%	11.9%	11.3%	14.0%
New job characteristics					
Gained health insurance	9.4	10.4	8.4	11.2	7.7
Lost health insurance	10.4	14.1	6.7	10.7	10.1
Higher earnings	37.7	38.2	37.2	39.5	36.0
Lower earnings	43.1	42.3	43.9	45.9	40.5
Less stress	41.2	42.3	40.2	42.9	39.7
More stress	15.0	14.5	15.5	12.0	17.8
Less physically demanding	40.8	42.7	38.9	39.5	42.1
More physically demanding	34.8	37.8	31.8	36.5	33.2

Source: Authors' calculations from 1992-2012 HRS.

Table 3. *Quality of New Job, by Gender and Education*

New job quality	All	Women	Men	High school or less	At least some college
Better	23.3%	23.8%	22.7%	21.6%	25.0%
Mixed	60.1	61.2	59.1	62.7	57.4
Worse	16.6	15.0	18.2	15.7	17.6

Source: Authors' calculations from 1992-2012 HRS.

Table 4. *Marginal Effect on Being in the Labor Force at Age 65*

Variable	Job change + controls	Job change + planned retirement age + controls	Job change + planned retirement age + new job characteristics + controls
Voluntary job change	0.0828***	0.0922***	0.0831***
	(0.026)	(0.034)	(0.036)
Planned retirement age		0.0320***	0.0320***
		(0.004)	(0.004)
New job characteristics			
Change in earnings			-0.0163
			(0.034)
Change in health insurance status			0.2264***
			(0.072)
Change in stress level			0.0408
			(0.043)
Change in physicality			0.0421
			(0.035)
Original job characteristics			
Earnings (x1000)	0.0002	0.0002	0.0002
	(0.000)	(0.000)	(0.000)
DB	0.0025	-0.0037	-0.0074
	(0.032)	(0.038)	(0.038)
Tenure	0.0007	0.0002	-0.0001
	(0.001)	(0.002)	(0.002)
Job tenure x DB coverage	-0.0082***	-0.0040*	-0.0039*
	(0.002)	(0.002)	(0.002)
Health insurance	-0.0042	-0.0298	-0.0167
	(0.020)	(0.026)	(0.027)
Retiree health insurance	-0.1811***	-0.1652***	-0.1694***
	(0.018)	(0.022)	(0.022)
Blue collar	-0.0672***	-0.0758***	-0.0792***
	(0.021)	(0.025)	(0.025)

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Table 4. *Marginal Effect on Being in the Labor Force at Age 65* (cont'd)

Variable	Job change + controls	Job change + planned retirement age + controls	Job change + planned retirement age + new job characteristics + controls
Wealth and personal characteristics at age 60			
Ratio of financial wealth to earnings	-0.0000	-0.0007	-0.0007
	(0.000)	(0.000)	(0.000)
Has mortgage debt	0.0547***	0.0487**	0.0477**
	(0.017)	(0.021)	(0.021)
Health index	-0.0682***	-0.0632***	-0.0644***
	(0.007)	(0.008)	(0.008)
Demographics			
At least some college	0.0460**	0.0138	0.0117
	(0.020)	(0.024)	(0.024)
Male	0.0488***	0.0227	0.0224
	(0.019)	(0.023)	(0.023)
Black	0.0362	0.0802***	0.0814***
	(0.023)	(0.030)	(0.030)
Hispanic	0.0398	0.0937**	0.0945**
	(0.032)	(0.040)	(0.039)
Turned 65 after onset of Great Recession	-0.0104	-0.0112	-0.0075
	(0.021)	(0.029)	(0.029)
R-squared	0.0838	0.127	0.131
Observations	3,823	2,537	2,537

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.
Source: Authors' calculations from 1992-2012 HRS.

Table 5. *Marginal Effect on Being in the Labor Force at Age 67*

Variable	Job change + controls	Job change + planned retirement age + controls	Job change + planned retirement age + new job characteristics + controls
Voluntary job change	0.0873***	0.1083***	0.0960***
	(0.026)	(0.032)	(0.033)
Planned retirement age		0.0240***	0.0240***
		(0.003)	(0.003)
New job characteristics			
Change in earnings			-0.0281
			(0.028)
Change in health insurance status			0.1167***
			(0.055)
Change in stress level			0.0250
			(0.035)
Change in physicality			0.0350
			(0.028)
Original job characteristics			
Earnings (x1000)	0.0001	0.0001	0.0001
	(0.000)	(0.000)	(0.000)
DB	-0.0408	-0.0443	-0.0458
	(0.029)	(0.033)	(0.033)
Tenure	0.0020*	0.0015	0.0013
	(0.001)	(0.001)	(0.001)
Job tenure x DB coverage	-0.0062***	-0.0024	-0.0023
	(0.002)	(0.002)	(0.002)
Health insurance	-0.0415**	-0.0515**	-0.0453*
	(0.019)	(0.023)	(0.023)
Retiree health insurance	-0.0830***	-0.0748***	-0.0763***
	(0.017)	(0.020)	(0.020)
Blue collar	-0.0687***	-0.0696***	-0.0716***
	(0.018)	(0.021)	(0.021)

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Table 5. *Marginal Effect on Being in the Labor Force at Age 67* (cont'd)

Variable	Job change + controls	Job change + planned retirement age + controls	Job change + planned retirement age + new job characteristics + controls
Wealth and personal characteristics at age 60			
Ratio of financial wealth to earnings	-0.0002	-0.0005	-0.0005
	(0.000)	(0.000)	(0.000)
Has mortgage debt	0.0413***	0.0424**	0.0421**
	(0.016)	(0.018)	(0.018)
Health index	-0.0535***	-0.0486***	-0.0495***
	(0.006)	(0.008)	(0.008)
Demographics			
At least some college	0.0258	0.0127	0.0119
	(0.018)	(0.021)	(0.021)
Male	0.0622***	0.0355*	0.0359*
	(0.017)	(0.020)	(0.020)
Black	0.0343	0.0608**	0.0615**
	(0.022)	(0.027)	(0.027)
Hispanic	0.0103	0.0354**	0.0359**
	(0.029)	(0.036)	(0.036)
Turned 65 after onset of Great Recession	0.1165***	0.1155***	0.1170***
	(0.018)	(0.022)	(0.022)
R-squared	0.0760	0.118	0.121
Observations	3,619	2,448	2,448

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.
Source: Authors' calculations from 1992-2012 HRS.

Table 6. *Marginal Effect on Being in the Labor Force at Age 65, by Gender*

	Not retired before 65			
	Women		Men	
Variables	Job change + planned retirement age + controls	Job change + planned retirement age + new job characteristics + controls	Job change + planned retirement age + controls	Job change + planned retirement age + new job characteristics + controls
Voluntary job change	0.0929**	0.1019**	0.1039**	0.0780
	(0.046)	(0.051)	(0.046)	(0.049)
Planned retirement age	0.0286***	0.0282***	0.0345***	0.0353***
	(0.004)	(0.004)	(0.004)	(0.004)
New job characteristics				
Change in earnings		-0.0039		-0.0298
		(0.048)		(0.046)
Change in health insurance status		0.2081**		0.2484***
		(0.088)		(0.120)
Change in stress level		-0.0013		0.0906
		(0.059)		(0.057)
Change in physicality		0.0322		0.0718
		(0.047)		(0.048)
R-squared	1,255	1,255	1,282	1,282
Observations	0.0851	0.0887	0.184	0.189

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Model contains all controls present in Table 4. Full results available upon request.
Source: Authors' calculations from HRS (1992-2012).

Table 7. *Marginal Effect on Being in the Labor Force at Age 65, by Education*

	Not retired before 65			
	High school or less		At least some college	
Variables	Job change + planned retirement age + controls	Job change + planned retirement age + new job characteristics + controls	Job change + planned retirement age + controls	Job change + planned retirement age + new job characteristics + controls
Voluntary job change	0.0744*	0.0643	0.1123**	0.0958*
	(0.045)	(0.049)	(0.047)	(0.050)
Planned retirement age	0.0373***	0.0378***	0.0282***	0.0281***
	(0.004)	(0.004)	(0.004)	(0.004)
New job characteristics				
Change in earnings		-0.0204		-0.0152
		(0.046)		(0.049)
Change in health insurance status		0.3154***		0.1268
		(0.101)		(0.106)
Change in stress level		0.0658		0.0494
		(0.063)		(0.056)
Change in physicality		0.0588		0.0292
		(0.046)		(0.049)
R-squared	1,375	1,375	1,162	1,162
Observations	0.124	0.131	0.139	0.140

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Model contains all controls present in Table 4. Full results available upon request.
Source: Authors' calculations from HRS (1992-2012).

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