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IS NONTRADITIONAL WORK AT OLDER AGES ASSOCIATED WITH BETTER RETIREMENT SECURITY?

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Abstract

Holding nontraditional jobs – those that provide neither health insurance nor retirement benefits – at younger ages likely hurts retirement security relative to traditional jobs. But nontraditional work might be helpful to those looking to extend their careers for financial reasons. This study uses the Health and Retirement Study to determine the extent to which workers in traditional jobs with less retirement security when they reach the cusp of retirement are more likely to move to nontraditional jobs in their mid- to late-60s than those who are more secure, all else equal. It then examines whether working in nontraditional jobs at older ages helps to improve their retirement security by ages 67-68. The results indicate that workers in traditional jobs who reach age 62 with less projected retirement income, relative to their preretirement standard of living, are no more likely to engage in nontraditional work after age 62 than those who are better prepared. In fact, some evidence suggests that those who transition to nontraditional work have greater retirement wealth, especially business income, than those who stay in traditional work or who opt not to keep working. Among those workers who are at risk of not maintaining their pre-retirement income level in retirement, however, nontraditional work appears to move them closer to retirement security. These results suggest that nontraditional work may help underprepared workers in good health lengthen their careers and improve their retirement security.

Introduction

The National Retirement Risk Index (NRRI) indicates that about half of working-age households in the United States are at risk of being unable to support their current lifestyles in retirement (Munnell, Hou, and Sanzenbacher 2018). Fortunately, workers can greatly improve retirement security by extending their careers; doing so increases their Social Security benefits, allows more time to save, and reduces the period over which retirees have to stretch their nest eggs. For example, working until age 70 cuts the share of workers at risk in retirement by half (Munnell, Hou, and Sanzenbacher 2019). Working longer can even be more effective than increasing saving throughout one's career (Bronshtein et al. 2018).

But the types of jobs held near the end of one's career do not always look like the jobs held in one's prime. Studies show that a disproportionate share of the jobs held by workers ages 50 or older are in alternative or nontraditional arrangements, including independent contracting, temporary employment, and on-call work (Katz and Krueger 2016, 2019; Abraham, Hershbein, and Houseman 2020; Munnell, Wettstein, and Walters 2020). These jobs leave workers vulnerable to job loss or cuts in hours, and may lack key fringe benefits such as health insurance and retirement plan coverage. Policymakers and the media have expressed concern about the precariousness of these jobs and the lack of financial security for those who hold them.

While traditional jobs provide more security, nontraditional jobs may help older workers extend their careers, giving them an opportunity to improve their retirement prospects. These jobs may even be a better fit for workers interested in moving gradually into retirement because of declining physical abilities or preferences for work-life balance.¹

This study examines the use of nontraditional jobs – defined as those that lack both employer-provided health and retirement benefits – after age 62, using data from the *Health and Retirement Study* (HRS) linked to administrative earnings data. It aims to answer two questions. First, to what extent do workers who reach their 60s with finances that are insufficient for retirement use nontraditional jobs more than prepared workers? Second, how much is engaging in nontraditional work between ages 62 and 68 associated with better retirement security relative to not working?

¹ Such "bridge jobs" are documented in a large literature. For examples, see Ruhm (1990), Quinn, Cahill, and Giandrea (2019), and Munnell, Sanzenbacher, and Walters (2019).

The rest of the paper proceeds as follows. The next section reviews the literature defining nontraditional work, measuring the retirement security of workers in these jobs, and relating the decision to work in nontraditional jobs to one's retirement security upon reaching retirement. The third section describes how the analysis uses HRS data to define both nontraditional work and retirement security. The fourth section outlines the empirical approach to examining the extent to which those who are underprepared for retirement at ages 61-62 use nontraditional work and whether that nontraditional work helps improve their retirement security by ages 67-68, and the fifth section presents results. The final section concludes that traditional workers are no more likely to transition to nontraditional work if they are underprepared for retirement. But the workers who reach age 62 at risk of not maintaining their pre-retirement lifestyle see greater improvements in retirement security by engaging in nontraditional work than those who do not keep working, and by at least as much as those who stay in traditional work.

Background and Previous Literature

While research on nontraditional work dates back decades (see an early review from Barker and Christensen 1998), it has gained renewed prominence in the media and among social scientists, especially after Katz and Krueger's (2016) survey found an increase in so-called "alternative" work arrangements from 10 percent in 2005 to 15 percent in 2015. Later studies differ on whether the trend is so clearly increasing, in part because measuring alternative arrangements is quite difficult. One issue is that alternative jobs are often secondary jobs, which household surveys often miss (Katz and Krueger 2019; Abraham, Hershbein, and Houseman 2020). For example, Collins et al. (2019) find evidence that, although a higher share of workers is filing IRS Form-1099s indicating independent contracting work, almost all of the growth is from people using that work as a secondary source of income.²

Another issue is that both tax records and self-reported information in large-scale surveys lack the nuance required to capture the complex ways in which employers classify workers as employees or contractors, or in how workers characterize their own relationship to their employers. Some studies have focused on the gig economy because it is a more clearly defined

² Jackson, Looney, and Ramnath (2017) similarly use administrative tax records, but instead identify workers with self-employment income and only small amounts of business expenses, which may indicate independent contracting. They find that the share of the workforce with this tax-filing status nearly doubled from 1999 to 2014, though it remains only a small share of the workforce: around 4 percent.

form of alternative work, but these studies tend to find that online platforms are still used only rarely: the largest estimates find that only about 4 percent of the workforce take part in online gig work (Farrell and Greig 2016; Abraham et al. 2018; Collins et al. 2019). As a result, the studies on this topic characterize a variable and often quite broad range of employment arrangements as alternative or nontraditional work: independent contracting and freelancing, temporary employment agencies, contract work, direct-selling to consumers, part-time work, and small business ownership. Under this more expansive definition, the share of workers in nontraditional arrangements is as high as 30 percent (Robles and McGee 2016) or even 40 percent (U.S. Government Accountability Office 2015) of workers.

Because of the lack of consensus over the definition of nontraditional work, the current study is part of a research agenda that focuses on the characteristics of jobs – ultimately, what matters for economic security is not the label given the job, but factors such as fringe benefits and the volatility of hours and employment.³ This focus on job characteristics instead of the nature of the employer relationship is also related to the strand of the literature examining the quality of jobs. For example, Kalleberg, Reskin, and Hudson (2000) report that, as of 1995, 31 percent of American workers were in jobs that fit the CPS definition of alternative arrangements, and/or lacked retirement and health benefits, and/or carried low or volatile pay. In a review, Osterman (2013) finds that jobs with unpredictable wages are becoming more common and fringe benefit offers are declining.

In part because of the unsettled nature of measuring nontraditional work, only a small number of studies have examined the relationship between nontraditional work and retirement security. Two questions are relevant to the present study: 1) are workers who hold nontraditional jobs at older ages less prepared for retirement?; and 2) how does the use of nontraditional work at older ages relate to their retirement security?

The answer to the first question may appear obvious: workers in nontraditional jobs will end up less prepared for retirement, because, by definition, these jobs do not have access to retirement plans. Indeed, Rutledge (2020) finds little evidence that households with workers in nontraditional jobs make up for their lack of 401(k)s by saving more in Individual Retirement Accounts (IRAs) or in their spouse's 401(k). Furthermore, with less consistent work and

³ The other studies in that research agenda are Rutledge, Wettstein, and King (2019); Munnell, Sanzenbacher, and Walters (2019); and Rutledge (2020).

unstable – or underreported – earnings, these workers accrue smaller Social Security benefits (Bruckner and Hungerford 2019). This instability may also make saving on their own, or buying a home, more difficult.

Of course, not all workers holding nontraditional jobs at older ages have always held that kind of job. While Munnell, Sanzenbacher, and Walters (2019) find that few workers bounce back and forth from traditional to nontraditional jobs, they study these patterns only for workers at ages 50-62; due to data limitations, determining what jobs today's older workers held at younger ages may prove impossible.⁴ Many older workers in nontraditional jobs may have held traditional jobs earlier in their careers, during which they may have been able to accumulate enough savings to make a job without fringe benefits more feasible once they reached older ages.

In fact, transitioning to a nontraditional job after age 62 may be one of the best ways to prolong one's career. The literature suggests that many workers prefer to stay in reduced roles in their career job, but their employers may not accommodate that preference (Hutchens and Chen 2007). As a result, to accommodate a gradual retirement, workers often have to switch jobs or even occupations to a bridge job (Cahill, Giandrea, and Quinn 2011). Non-traditional work may facilitate gradual retirement by allowing older workers to trade on their experience to become an independent contractor or consultant, or to take on-call jobs such as substitute teaching when they have the time or inclination to work. Indeed, Katz and Krueger (2016, 2019) find that older workers are the most likely age group to work in these kinds of jobs. More broadly, workers interested in a gradual retirement may be willing to take on jobs that do not offer fringe benefits in order to continue earning a salary and avoid tapping their retirement resources.

The workers best positioned to trade on their prior experience and connections are bettereducated workers. Abraham, Hershbein, and Houseman (2020) find that, while education is negatively associated with informal work for prime-age workers, better-educated older workers are actually more likely to engage in informal work than less-educated older workers. Higher educational attainment usually results in higher wealth and saving rates, so better-educated workers engaging in nontraditional work at older ages may be more financially secure than those who leave the labor force entirely around age 62.

⁴ No previous work has attempted to document the longer course of one's career in traditional and nontraditional jobs. To our knowledge, no dataset surveys a large number of people over a long enough period with the appropriate level of detail.

The above discussion implies that the workers holding nontraditional jobs at older ages could be more or less secure than workers who hold traditional jobs – or, for that matter, those who stop working completely. Few studies address this question directly. Munnell, Sanzenbacher, and Walters (2019) find that workers who spend most of their 50s in nontraditional jobs have less retirement wealth by age 62 than those who consistently hold traditional jobs. Jackson, Looney, and Ramnath (2017) and Rutledge (2020) find that workers in alternative arrangements are less likely to contribute to 401(k) and IRAs.

The second relevant question is: do those who find themselves behind in their retirement planning use non-traditional jobs more often? The prior literature has not reached a firm conclusion. Gustman and Steinmeier (1986) find that the decision to leave full-time employment but only partially retire is motivated, at least in part, by financial resources. Giandrea, Cahill, and Quinn (2009) find some indication that bridge jobs are most likely to be used by the financially unprepared – older workers are somewhat less likely to work in a bridge job if they have retirement plan coverage or greater wealth – but their results are statistically insignificant. Kim and DeVaney (2005) find that while full retirement is strongly correlated with financial incentives, the decision to only partially retire is less related to the worker's financial resources, in part because other factors – such as health and work-life balance – are also key to that decision.⁵

This study is the first to focus specifically on the degree of retirement security that workers encounter when they reach traditional retirement ages, and how this financial status relates to their decision to work in nontraditional and traditional jobs at subsequent ages. In addition, the study examines whether working in nontraditional jobs after age 62 provides the needed financial boost to workers before they can retire fully.

Data

The project uses the *Health and Retirement Study* (HRS) to examine the use of nontraditional jobs by workers ages 62-68 over the 2002-2016 period. The HRS is a longitudinal survey of U.S. households with at least one adult age 50 or older. Every two years (one "wave"),

⁵ A related phenomenon is "unretirement," where retired workers come back to the workforce. Maestas (2010) finds that unretirement is most often something that workers plan to do from the start of their retirement, rather than a response to insufficient financial resources during their retirement years.

respondents are surveyed about their labor market activity, income, health insurance status, wealth, and saving activity, as well as key background information such as their demographics, family structure, health, and retirement expectations.

This analysis examines whether nontraditional employment might help older workers extend their careers. To do so, the analysis focuses on workers who are on the cusp of retirement – at ages 61 or 62 – who are not currently working in nontraditional jobs. Munnell, Sanzenbacher, and Walters (2019) conclude that the workers who already engage in nontraditional jobs at ages 50-62 are fundamentally different than those who remain in traditional work throughout those ages. By eliminating those workers who have already been working in nontraditional jobs, the analysis focuses on whether switching to nontraditional work – which often provides more flexibility and autonomy, and less responsibility – might make delayed retirement more feasible.

The sample includes any respondent who is observed in the HRS in 2002-2016 at ages 61 or 62, and also at least one subsequent wave, up to age 68.⁶ The age-61/62 wave is used as a baseline for measuring retirement security: this wave is just before (or just as) they become eligible for Social Security retirement benefits, so it is the first age at which retirement becomes financially plausible for most workers. The subsequent waves are required to determine whether they have any nontraditional or traditional work after this point. The analysis excludes any workers who applied for or received Social Security Disability Insurance or Supplemental Security Income benefits, because these workers are likely too unhealthy to consider working in their mid- to late-60s, and these programs may discourage further work. The sample also excludes any individual who worked too little to be eligible for Social Security retirement benefits; these individuals have little attachment to the workforce, and their retirement income replacement rates will be much lower than most retirees.

Retirement security is evaluated based on the projected Social Security benefit, among other income sources, relative to average career earnings. Both the potential Social Security benefit and career earnings history are calculated using earnings records from the Social Security

⁶ Since the HRS is a biennial survey, most respondents will be surveyed at either age 61 or 62, not both; similarly, those who stay in the survey will be interviewed at age 67 or 68, not both.

Administration (SSA) linked to the HRS. The sample excludes anyone without a valid link to the SSA administrative records, for whom these variables cannot be calculated.⁷

Defining Nontraditional Work

The analysis focuses on one definition of nontraditional work: whether a job lacks *both* employer-sponsored retirement and health benefits. Other studies have used alternative definitions, including some measure of volatility (variable hours, recent job instability, or volatile monthly earnings) or independent contracting (self-employed with no other employees), but those studies generally show qualitatively similar results with these more restrictive definitions (Rutledge, Wettstein, and King 2019; Munnell, Sanzenbacher, and Walters 2019; and Rutledge 2020).

Respondents are marked as having an offer of employer-sponsored retirement benefits if they report participating in any type of pension or retirement plan, or if they report being eligible for any type of retirement plan.⁸ Respondents are marked as receiving an offer of employer-sponsored health benefits if they report that their source of insurance is their employer or union or, if they are not covered, that their employer offered them health coverage.⁹

Individuals are designated as having nontraditional jobs if they are not eligible for a retirement plan and do not receive an offer of health insurance through their current employer or union. The analysis excludes any workers whose job's nontraditional or traditional status cannot be determined, due to missing information on their retirement plan eligibility or their participation in employer-sponsored health insurance plans.¹⁰

⁷ Some respondents' SSA records in the HRS are incomplete. For those whose records end early, the analysis first determines if a respondent worked in the years following the year their records end. The employment status question in the HRS survey is used for the years coinciding with an HRS wave. Respondents are considered to be working in the year before a survey wave if they reported positive earnings in that wave. Then, the analysis imputes earnings for the years they worked by projecting forward future earnings by multiplying their last recorded earnings by the average wage index for that year.

⁸ Retirement plan coverage is available from the RAND HRS Longitudinal File, but eligibility among those who do not report participating in a retirement plan is from the raw HRS files.

⁹ The health insurance coverage and offer variables are constructed from the raw HRS files. The HRS changed the flow of questions regarding health insurance offer status in 2002, thereby changing the universe of respondents who are asked the relevant questions, so earlier waves are unavailable for this analysis.

¹⁰ Nontraditional or traditional status is known for anyone with either a retirement plan or employer-sponsored health insurance, regardless of whether the other variable is missing. Also, because of skip patterns, the share of individuals with missing information on the offer of employer-sponsored health insurance is quite high. Therefore, the respondent is marked as missing traditional or nontraditional status only if: 1) they are missing retirement plan eligibility and report no current employer-sponsored health insurance and either report no health benefit offer or

One important limitation in this analysis of workers holding nontraditional jobs is that information on employer retirement and health benefits is restricted to the respondent's current main job. As with other data sources, the HRS does not allow the analysis to reliably capture multiple job-holding as a measure of job quality or worker stability (see Katz and Krueger 2019 for discussion of this limitation in most major U.S. household surveys). To the extent that the analysis misses coverage from second jobs, it will include some workers as being in nontraditional jobs when they should be counted as having traditional jobs. Therefore, the analysis, if anything, will understate the differences in retirement security between workers in traditional and nontraditional employment.

The sample is split into three groups: 1) those who engage in nontraditional work at any subsequent HRS wave at ages 63-68; 2) those who engage only in traditional employment at those ages; and 3) those who do not engage in substantial work at any of those ages. Substantial work is defined as earning at least four times the Social Security credit threshold in that year; in 2020, one credit is earned for each multiple of \$1,410 in annual earnings, up to four per year, so this threshold is \$5,640 in 2020 dollars.¹¹

Measuring Retirement Security

The measurement of retirement security is based on a principle similar to the NRRI (Munnell, Webb, and Delorme 2006): the extent to which the worker's household's retirement income replacement rate falls short of a target rate. The target rate ranges from 64 to 88 percent – in other words, the analysis assumes retirees can maintain the lifestyle to which they are accustomed with some fraction of their income from their pre-retirement years. Lower-income households are at the higher end of that range because their expenses (particularly their taxes) tend to decrease by less when they retire, and they can less afford to take a step down.¹²

The numerator of the replacement rate is the respondent's projected retirement income. The first component is the respondent's Social Security income, calculated from SSA's

have missing information for the offer; or 2) they are missing information on whether they receive health insurance from their current employer and report not being eligible for a retirement plan.

¹¹ Respondents who have substantial earnings in the SSA administrative earnings records (more than \$5,640 in 2020 dollars) and who do not report working are unclassifiable as being in either nontraditional or traditional jobs, and thus dropped from the sample.

¹² The target replacement rates are based on unpublished updates of the table reported in Munnell, Webb, and Delorme (2006). These targets are available upon request.

administrative earnings records. This calculation assumes the respondent claims their benefit at age 62, because the analysis aims to capture the state of the respondent's retirement security when he reaches age 62; the calculation therefore reflects a 20-30 percent reduction in benefits, relative to the Full Retirement Age (65-67, with the exact age dependent on birth cohort), due to the actuarial adjustment for early claiming. The second component is defined benefit pension income, assuming the respondent claims at age 62. The third component is annuitized retirement wealth, including the value of defined contribution plans and IRAs; these sources of wealth are annuitized at market rates under the assumption that the respondent begins collecting benefits at age 62. The final component is capital income – income from rental properties, investments, or other sources – and any income from one's spouse, including the spouse's actual or potential Social Security benefit, measured at the age-61/62 HRS wave.

The denominator of the replacement rate is the respondent's pre-retirement income. Because some workers might have started to reduce their hours before age 62, the analysis uses the respondent's Average Indexed Monthly Earnings (AIME), a measure of their career average earnings used as part of the Social Security benefit calculation, to proxy for the level of earnings to which the respondent is accustomed. The denominator also includes any other sources of income from before retirement; therefore, capital and spousal income are included in both the numerator and denominator, as these sources are assumed to continue into retirement.¹³

Due to missing information on either pre-retirement income or retirement assets, some respondents have extremely low or extremely high replacement rates. The analysis winsorizes the sample by eliminating the top and bottom 5 percent of replacement rates at ages 61-62. Table 1 details the sample selection criteria; after winsorizing, the sample consists of 1,710 unique HRS respondents with non-missing information on key variables and a valid link to the SSA administrative earnings data.

¹³ This assumption on spousal income is intended to simplify the analysis. While spouses often retire in close proximity to each other, the analysis here takes the perspective of one respondent, holding the behavior of the respondent's spouse constant. For the typical household, where the husband is slightly older than the wife, this assumption also allows the analysis to sidestep the question of what retirement income would be if the husband retires at age 62 before the wife is eligible for Social Security benefits. For couples where the respondent's spouse actually would retire and reduce the household's income, the assumption that spousal income remains unchanged will make the projected replacement rate artificially high and the retirement security gap artificially low, and fewer respondents will be at risk of not having saved enough. As a result, some respondents will not fall in the at-risk sample, and therefore will not be included in the analysis of whether working in nontraditional jobs helps improve retirement security. If extending one's career in a nontraditional job is especially helpful to these marginally unprepared respondents, then the results will understate the positive impact of nontraditional work.

As in the NRRI, the analysis creates an indicator variable for whether the respondent is at risk for not being able to maintain their pre-retirement level of consumption, as measured by whether the projected replacement rate falls short of 90 percent of the target replacement rate. Some subsample analyses focus on workers who are at-risk under this definition.

Methodology

This study aims to determine: 1) the extent to which workers in traditional jobs with less retirement security at ages 61-62 attempt to continue their careers by taking nontraditional jobs; and 2) whether the workers who do move into nontraditional work after age 62 improve their retirement security.

Using Nontraditional Work to Extend One's Career. The study first compares measures of retirement security, in particular the projected replacement rate and the extent to which it falls short of the target rate, among workers who opt to move to nontraditional work, vs. those who stay in traditional work and those who opt not to work in any substantial way after age 62. It also examines whether nontraditional work is more commonly used by those with less retirement security. To do so, the analysis estimates a multinomial logit regression model, where the dependent variable is a categorical variable representing the respondent's post-62 employment status: 1) engaging in nontraditional work at one or more HRS waves between ages 63-68; or 2) engaging only in traditional jobs at these ages. The marginal effects (and their standard errors) for this model are reported: to be specific, the analysis calculates the derivative of post-62 employment status with respect to each independent variable's value for each respondent, then averages those derivatives across respondents.

The key independent variable is the retirement security gap, measured as the percentagepoint difference between the target and the projected replacement rate. Respondents with a large positive value for the retirement security gap fall substantially short of their retirement saving targets, and therefore are projected to substantially reduce their standard of living at retirement. If workers who are not on track to meet their targets are more likely to engage in nontraditional employment to lengthen their careers and potentially reduce that shortfall, the coefficient on the retirement security gap would be positive.

The regression analysis controls for the respondent's AIME (expressed as a natural logarithm) to account for the worker's labor force attachment and earnings potential. By

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controlling for this measure of career earnings, the analysis effectively compares individuals with similar underlying value in the labor market, to determine whether a worker with less-secure retirement prospects will seek out opportunities to extend their career. Similarly, the analysis controls for the respondent's household income at ages 61-62 excluding their own earnings, to effectively compare individuals with similar levels of resources outside of their own employment just before retirement, to see if those with less wealth are more likely to keep working. The regression analysis also includes a vector of personal characteristics, including gender, marital status, race and Hispanic ethnicity, educational attainment, health status, and self-employment status.

Improving Retirement Security Through Nontraditional Work. The second part of the analysis examines whether respondents who lengthen their careers through nontraditional work are able to close some of the gap with their retirement security targets. For this part of the analysis, the sample is limited to those who are observed at ages 67 or 68, and much of the focus is on those respondents who were "at risk" of not being able to maintain their current level of consumption as of age 61 or 62. This analysis is somewhat limited by its small sample size; only 836 of the 1,710 respondents used in the analysis at ages 61-62 are observed at ages 67-68 (Table 1).¹⁴

Specifically, the analysis examines the extent to which the retirement security gap – the difference between the target and projected replacement rates – is smaller at ages 67-68 than it was at ages 61-62. To do so, it estimates an ordinary least squares (OLS) regression where the dependent variable is the level of the retirement security gap at ages 67-68. The regression controls for the initial retirement security gap, so that the analysis can compare respondents with the same level of retirement security on the cusp of conventional retirement ages. The key independent variables are two indicator variables for engaging in some nontraditional work, or only traditional work, between ages 61-62 and ages 67-68; the omitted condition is not working at all after ages 61-62. The study hypothesizes that individuals who engage in nontraditional work reduce their retirement security gap, thereby drawing closer to their targets, though not by as much as those who continue in traditional employment.

¹⁴ About one-half of respondents from the age-61/62 sample who are not in the age-67/68 sample had not yet reached age 67 or 68 by 2016. Most of the rest were not interviewed in their age-67/68 wave or were missing important information (most often, their pension income). Only a small number of them died by age 67-68.

Results

The study first reports descriptive statistics about individuals who engage in nontraditional or traditional work relative to those who no longer work after age 62. It then discusses regression estimates that examine whether nontraditional work is more common for those who are projected to have less retirement security upon reaching early retirement ages. It proceeds to examine retirement security outcomes at ages 67-68 to determine whether those who extend their careers through nontraditional work are able to reduce their retirement security shortfalls.

Who Chooses Nontraditional Work After Age 62?

Table 2 reports descriptive statistics for the full sample, as well as for each category of post-age-62 work status: 1) respondents who are observed in nontraditional work at some point from ages 63-68; 2) respondents who work at those ages, but only in traditional employment; and 3) respondents who do not work substantially in any HRS wave after age 62.

Respondents who engage in nontraditional work at older ages are somewhat more likely to be married or Hispanic than the other groups. They are better educated and healthier than non-workers, and less likely to be male, but somewhat less healthy than those who continue in traditional employment (with about the same level of education). At ages 61-62, those who subsequently opt for nontraditional work have the lowest earnings of the three categories, and the lowest career average earnings to that point (as measured by their AIME). But workers who engage in nontraditional jobs at older ages have the highest household income excluding their own earnings, which suggests that many of these workers are secondary earners or those with substantial sources of income outside their own employment even before they reach retirement. Moreover, the high share of self-employment suggests that some of these workers are small business owners who may derive income from their business profits.¹⁵ On net, their household income is slightly lower than those who stay in traditional work, but higher than non-workers.

Do Those with Less Financial Security at Ages 61-62 Engage in Nontraditional Work After Age 62?

Table 3 reports average retirement asset and income measures at ages 61-62 for each of the categories of work status at subsequent ages. As suggested by their lower average AIMEs, Social Security income is smallest for those who subsequently work in nontraditional jobs. As expected, those who fully exit the labor force at or before age 62 have the most defined benefit (DB) income, as DBs often include explicit or implicit incentives to retire relatively early. Individuals who engage in some nontraditional work have slightly greater DB income than traditional workers, which suggests that they might be using nontraditional work to supplement their pension payments.

In contrast to the retirement income sources that are already annuitized, those who opt for nontraditional work have the least potential defined contribution (DC) income (just barely less than non-workers). While nontraditional work will not likely help them save more in DC accounts – because their jobs, by definition, do not offer employer retirement savings plans – working in nontraditional jobs could put off the point at which respondents need to start tapping that wealth. Furthermore, these jobs may help build up other sources of wealth, including business equity and capital income: those who engage in nontraditional work at older ages have the greatest potential income from other sources of nonannuitized wealth, and by far the greatest capital income.

After accounting for all of these sources, workers who engage in nontraditional employment after age 62 reach that age with the highest pre-retirement income, and project to have the highest retirement income (once all sources of wealth are annuitized). The group that does not work after age 62 receives the largest monthly checks from defined benefit plans, and

¹⁵ While the high share of the self-employed among workers who engage in nontraditional work may not seem surprising at first glance – independent contractors and small business owners often lack retirement and health benefits, so they would be more likely to be defined as nontraditional jobs – the result is less mechanical than it seems, because the sample is limited to workers who hold *traditional* jobs at ages 61-62. It is possible that workers had previous experience with nontraditional jobs before ages 61-62, briefly held a traditional job at ages 61-62, and then returned to nontraditional employment for their late-career jobs, but Munnell, Sanzenbacher, and Walters (2019) suggest that few workers oscillate between traditional and nontraditional jobs after age 50.

nearly the largest Social Security checks, but the least income from other sources, and thus the lowest retirement income.

Rather than seeing nontraditional work concentrated among those who fall short of retirement targets, Table 4 reports that projected replacement rates are actually largest for those who engage in nontraditional work after age 62. Their retirement income and annuitized wealth can account for 83 percent of their pre-retirement income, on average. For workers who continue in traditional work, the average projected replacement rate is 78 percent, and for those who fully exit the work force after age 62 the replacement rate is 81 percent. The target replacement rates of the three groups are, on average, about the same – 73-74 percent of their pre-retirement income – and most respondents in each category project to be prepared for retirement by the time they reach ages 61-62 (the average retirement security gap is negative: the projected replacement rate is, on average, slightly *above* the target). But the share of respondents who are at-risk of not being able to continue their current lifestyle (that is, having less than 90 percent of their target) is largest for those who continue in traditional work. This finding suggests that workers who feel the least secure at the time they reach early retirement ages continue working in jobs that offer retirement and health benefits, rather than extending their careers through nontraditional work.

Figures 1 and 2 further indicate that nontraditional work does not attract those who approach retirement relatively unprepared. In Figure 1, the x-axis splits the sample into deciles by their projected replacement rates, while the y-axis shows the share who engage in nontraditional work. If workers who feel unprepared try to lengthen their careers through nontraditional employment, the line in Figure 1 would be downward-sloping. Instead, if anything, the line is mostly upward-sloping, with the highest share of nontraditional work among the 10 percent of respondents with the highest projected replacement rate, while nontraditional work is least likely among the bottom 20 percent. Figure 2 plots the share working in nontraditional employment after age 62 (on the y-axis) vs. the decile in their retirement security gap (target replacement rate minus projected replacement rate). If the respondents who were most short of their targets were more likely to work in nontraditional jobs, this line would be upward-sloping; instead, the line is flat, or even downward-sloping.

Not surprisingly, therefore, the multinomial logit results in Table 5 provide no evidence that the least retirement-secure are any more likely to engage in nontraditional work. The

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coefficient of interest is on the retirement security gap at ages 61-62. Under the hypothesis described earlier, a larger gap, where the respondent is further below his target, should be positively associated with subsequent nontraditional work, all else equal. The sign of the marginal effect for the nontraditional work outcome of the multinomial logit is, instead, *negative* after accounting for observable characteristics. But that marginal effect is small and not statistically significant. In contrast, those who have the largest retirement security gaps at ages 61-62 are more likely to continue in traditional employment at ages 63-68 (p<0.01), and they are statistically significantly less likely to engage in no work at all (p<0.05).¹⁶

Does Nontraditional Work Help Close the Retirement Security Gap?

Table 6 presents summary statistics on the change in retirement security measures between ages 61-62 and ages 67-68. The first column presents results for the full sample of people who are observed at both early retirement age and at a later point. These results show that the average respondent has seen almost no change in their replacement rate between ages 61-62 and ages 67-68. Of greater concern is that a higher share of respondents are below 90 percent of their target replacement rate. The reason for the lack of progress during respondents' 60s seems to be that, on average, all groups spent down some of their wealth by age 67-68, and some DB recipients in couples died off.¹⁷

The more relevant results are for those who were at risk of not being able to maintain their pre-retirement consumption as of ages 61-62 (that is, their projected replacement rate was below 90 percent of their target), seen in the final four columns of Table 6. Overall, the news is much more positive: the average at-risk respondent increased their replacement rate by 12 percentage points, from 51 percent at ages 61-62 to 63 percent at ages 67-68. The replacement rate rose the most – by 15 percentage points – for the group engaging in nontraditional work, just slightly more than the 14-percentage-point gain for those who stayed in traditional work. As a result, the share below 90 percent of their target fell sharply for both groups. The final column,

¹⁶ Other coefficients in Table 5 echo the summary statistics reported in Table 2: those who engage in nontraditional and traditional work are better educated, healthier, and more likely to be self-employed than those who do not work after age 62. Also echoing earlier results, the log of AIME is negatively and statistically significantly associated with working in nontraditional jobs after age 62. Household income excluding one's own earnings is statistically insignificantly associated with nontraditional or traditional work at older ages. The retirement security gap marginal effects are robust to exclusion of the AIME and household income controls.

¹⁷ Not surprisingly, the group that spent down their wealth by the greatest margin were those who did not work after age 62.

for those who did not work after age 62, provides a nullification test of sorts: this group primarily relied on Social Security benefits that do not diminish over the course of retirement, unlike defined contribution wealth. So, as expected, those who did not work after age 62 saw only a small decrease in their projected replacement rate.¹⁸

The OLS results in Table 7 indicate that those who engaged in nontraditional work after age 62 were able to close some of their retirement security shortfalls, by slightly more than those who stayed in traditional work. The first column, for the full sample, shows that the retirement security gap fell by 20 percentage points for those who engaged in nontraditional work, and by 14 percentage points for those who continued in traditional employment. The results are almost identical for those who are at-risk as of ages 61-62. While these coefficients are all statistically significant at the 95-percent level or higher, the small sample size means that the results should be interpreted with some caution.¹⁹

Conclusion

Workers who engage in nontraditional work – defined as jobs that lack employerprovided retirement and health benefits – before traditional retirement ages may have less retirement security than those in traditional jobs, because nontraditional jobs provide little opportunity to save, and leave workers financially vulnerable to health shocks. Indeed, the limited amount of prior work finds that these workers project to have lower retirement wealth. But these jobs need not be "bad jobs" for those who use them to prolong their working careers. Even if workers holding nontraditional jobs at ages 62-68 do not save more, they may still see greater retirement security by reaping the benefits of postponing their claims to Social Security and defined benefit income, and putting off using their nest-eggs from 401(k)s and other sources

¹⁸ The last three columns in Table 6 focus on individuals who are at risk at ages 61-62. By ages 67-68, the share of the group that never worked substantially after age 62 that is still at risk falls by 13 percentage points, but remains at 87 percent (down from 100 percent, by definition). This decrease, which may reflect regression to the mean, is much smaller than the decline in the at-risk share for the groups engaging in nontraditional and traditional work.

¹⁹ The models in Table 7 include the retirement security gap at ages 61-62, so the coefficient on the indicators for nontraditional and traditional work are effectively the change in the retirement security gap by ages 67-68; not surprisingly, the coefficient on the ages-61-62 gap is large and positive in each model. Models where the change in retirement security is the dependent variable yield almost identical results.

of wealth. The boost to retirement security from nontraditional jobs might be especially valuable to those who reach age 62 underprepared for retirement.

The results of this study suggest that those who reach age 62 projecting to have less retirement security do not use nontraditional jobs more often; in fact, some evidence suggests that those with *more* retirement wealth, especially in the form of business income, are more likely to transition from traditional to nontraditional work after age 62. But among those who are at risk of not maintaining their pre-retirement income in their retirement years, nontraditional work does seem to help: those who engage in nontraditional work end up increasing their retirement security by substantially more than those who do not work after age 62, and by at least as much as those who stay in traditional jobs.

The interpretation of this study's analysis should be tempered by two important factors. First, the analysis of the improved economic outcomes by ages 67-68 relies on small samples of older individuals observed in the data, and may not apply to a larger sample. Second, the empirical design does not allow the results to be interpreted as causal. Workers are not randomly assigned to nontraditional jobs, traditional jobs, or no work after age 62, and the factors that lead each group to make these choices may reinforce existing differences between these workers. For example, workers projected to have low retirement income may prefer to either keep working in a traditional job, or find a nontraditional job to continue their career, but their health may not allow them to continue working in any job. These high health costs could reflect chronic conditions that made them less able to save in their prime working years, but also lead them to spend down their retirement nest egg faster. The benefits seen by workers who are able to continue their careers in nontraditional jobs, therefore, may be greater than the potential benefits to those who could not keep working past age 62. So, while working longer in nontraditional jobs may be helpful to older individuals with remaining work capacity, it may not be an option that helps all individuals who reach early retirement age insufficiently prepared.

References

- Abraham, Katharine G., John Haltiwanger, Kristin Sandusky, and James R. Spletzer. 2018. "Measuring the Gig Economy: Current Knowledge and Open Issues." Working Paper 24950. Cambridge, MA: National Bureau of Economic Research.
- Abraham, Katharine G., Brad Hershbein, and Susan Houseman. 2020. "Contract Work at Older Ages." Working Paper 26612. Cambridge, MA: National Bureau of Economic Research.
- Barker, Kathleen and Kathleen Christensen. 1998. Contingent Work: American Employment Relations in Transition. Ithaca, NY: Cornell University Press.
- Bronshtein, Gila, Jason Scott, John B. Shoven, and Sita N. Slavov. 2018. "The Power of Working Longer." Working Paper 24226. Cambridge, MA: National Bureau of Economic Research.
- Bruckner, Caroline and Thomas L. Hungerford. 2019. "Failure to Contribute: An Estimate of the Consequences of Non- and Underpayment of Self-Employment Taxes by Independent Contractors and On-Demand Workers on Social Security." Working Paper 2019-1. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Cahill, Kevin E., Michael D. Giandrea, and Joseph F. Quinn. 2011. "How Does Occupational Status Impact Bridge Job Prevalence?" Working Paper 447. Washington, DC: U.S. Bureau of Labor Statistics.
- Collins, Brett, Andrew Garin, Emilie Jackson, Dmitri Koustas, and Mark Payne. 2019. "Is Gig Work Replacing Traditional Employment? Evidence from Two Decades of Tax Returns." Working Paper. Washington, DC: Internal Revenue Service.
- Farrell, Diana and Fiona Greig. 2016. "Paychecks, Paydays, and the Online Platform Economy: Big Data on Income Volatility." Working Paper. New York, NY: J.P. Morgan Chase and Co. Institute.
- Giandrea, Michael D., Kevin E. Cahill, and Joseph F. Quinn. 2009. "Bridge Jobs: A Comparison Across Cohorts." *Research on Aging* 31(5): 549-576.
- Gustman, Alan L. and Thomas L. Steinmeier. 1986. "A Structural Retirement Model." *Econometrica* 54(3): 555-584.
- Hutchens, Robert M. and Jennjou Chen. 2007. "The Role of Employers in Phased Retirement: Opportunities for Phased Retirement Among White-Collar Workers." In *Work Options for Older Americans*, edited by Teresa Ghilarducci and John Turner, 95-118. Notre Dame, IN: Notre Dame Press.

- Jackson, Emilie, Adam Looney, and Shanthi Ramnath. 2017. "The Rise of Alternative Work Arrangements: Evidence and Implications for Tax Filing and Benefit Coverage." Working Paper 114. Washington, DC: U.S. Department of the Treasury, Office of Tax Analysis.
- Kalleberg, Arne L., Barbara F. Reskin, and Ken Hudson. 2000. "Bad Jobs in America: Standard and Nonstandard Employment Relations and Job Quality in the United States." *American Sociological Review* 65(2): 256-278.
- Katz, Lawrence F. and Alan B. Krueger. 2016. "The Rise and Nature of Alternative Work Arrangements in the United States, 1995-2015." Working Paper. Princeton, NJ: Princeton University.
- Katz, Lawrence F. and Alan B. Krueger. 2019. "Understanding Trends in Alternative Work Arrangements in the United States." Working Paper 25425. Cambridge, MA: National Bureau of Economic Research.
- Kim, Haejeong and Sharon DeVaney. 2005. "The Selection of Partial or Full Retirement by Older Workers." *Journal of Family and Economic Issues* 26(3): 371-394.
- Maestas, Nicole. 2010. "Back to Work: Expectations and Realizations of Work after Retirement." *Journal of Human Resources* 45(3): 718-748.
- Munnell, Alicia H., Anthony Webb, and Luke Delorme. 2006. "Retirements at Risk: A New National Retirement Risk Index." Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Munnell, Alicia H., Wenliang Hou, and Geoffrey T. Sanzenbacher. 2018. "National Retirement Risk Index Shows Modest Improvement in 2016." *Issue in Brief* 18-1. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Munnell, Alicia H., Wenliang Hou, and Geoffrey T. Sanzenbacher. 2019. "How Would More Saving Affect the National Retirement Risk Index?" *Issue in Brief* 19-16. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Munnell, Alicia H., Geoffrey T. Sanzenbacher, and Abigail N. Walters. 2019. "How Do Older Workers Use Nontraditional Jobs?" Working Paper 2019-12. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Munnell, Alicia H., Gal Wettstein, and Abigail N. Walters. 2020. "What Jobs Do Employers Want Older Workers to Do?" Working Paper 2020-11. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Osterman, Paul. 2013. "Introduction to the Special Issue on Job Quality: What Does It Mean and How Might We Think About It?" *Industrial and Labor Relations Review* 66(4): 739-752.

- Quinn, Joseph F., Kevin E. Cahill, and Michael D. Giandrea. 2019. "Transitions from Career Employment among Public- and Private-Sector Workers." *Journal of Pension Economics* and Finance 18(4): 529-548.
- Robles, Barbara and Marysol McGee. 2016. "Exploring Online and Offline Informal Work: Findings from the Enterprising and Informal Work Activities Survey." Discussion Paper 2016-029. Washington DC: Federal Reserve Board of Governors.
- Ruhm, Christopher J. 1990. "Bridge Jobs and Partial Retirement." *Journal of Labor Economics* 8(4): 482-501.
- Rutledge, Matthew S. 2020. "Are Older Nontraditional Workers Able to Find Health and Retirement Coverage?" Working Paper 2020-9. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Rutledge, Matthew S., Gal Wettstein, and Sara Ellen King. 2019. "Will More Workers Have Nontraditional Jobs as Globalization and Automation Spread?" Working Paper 2019-10. Chestnut Hill, MA: Center for Retirement Research at Boston College.

University of Michigan. Health and Retirement Study, 2002-2016. Ann Arbor, MI.

U.S. Government Accountability Office (GAO). 2015. Contingent Workforce: Size, Characteristics, Earnings, and Benefits. Report GAO-15-168R. Washington, DC.

Table 1. Sample Selection

Criterion	Number of unique persons
HRS sample, 2002-2016	35,507
Observed at ages 61-62 in 2002-2016	9,124
Observed after ages 61-62 in 2002-2016	7,297
No SSDI or SSI activity	6,044
Linked to SSA data	4,943
Qualifies for Social Security retirement benefits	4,537
Wealth above -14000(5th percentile)	4,304
Other Income variable not missing	4,234
Traditional Job at 62	2,007
Replacement rate not in top or bottom 5 percent	1,785
Work Status after 62 is known	1,712
Positive weight	1,711
Education variable not missing	1,710
Analysis of change in replacement rate	
Observed at ages 67-68 in 2002-2016	836

Source: Authors' estimates from the Health and Retirement Study (2002-2016).

		Work status after age 62		
Characteristics as of age 61-62	Full sample	Any nontraditional work	Only traditional work	No further work
Male	52.57%	53.83%	51.81 %	54.42%
Married	71.33	75.16	69.85	73.02
Widowed	4.92	3.85	5.18	5.22
Black	6.66	6.55	6.37	8.25
Hispanic	5.02	5.47	4.98	4.55
Other (non-black, non-Hispanic, non-white)	2.28	2.01	2.06	3.76
Less than HS	5.66	5.23	4.58	11.54
HS graduate only	30.13	28.32	29.66	35.02
Some college	26.89	26.78	26.46	29.17
College graduate	37.31	39.67	39.3	24.27
Poor health	1.31	0.82	0.43	6.31
Self-employed	8.68	20.04	6.38	3.44
Personal earnings	\$61,873	\$49,710	\$67,859	\$50,364
Average Indexed Monthly Earnings	\$51,956	\$47,812	\$53,472	\$50,581
Household income	\$120,664	\$117,402	\$125,960	\$99,659
Household income excl. personal earnings	\$58,791	\$67,692	\$58,100	\$49,296
Number of observations	1,710	365	1,105	240

Table 2. Summary Statistics, by Work Status after Age 62

Source: Authors' estimates from the Health and Retirement Study (2002-2016).

		Work status after age 62		
	Full sample	Any nontraditional work	Only traditional work	No further work
Social Security benefit	\$15,325 (4,847)	\$14,622 (4,710)	\$15,573 (4,889)	\$15,137 (4,751)
Projected defined benefit pension income	9,603 (17,904)	9,255 (19,099)	8,494 (16,191)	15,494 (22,422)
Annuitized defined contribution wealth	6,048 (14,957)	4,198 (13,151)	6,980 (16,360)	4,193 (8,498)
Annuitized value of other wealth	9,364 (21,728)	10,493 (19,538)	9,491 (23,466)	7,117 (14,730)
Spouse income	31,046 (51,248)	30,528 (49,640)	30,576 (48,083)	34,077 (66,361)
Household capital income	24,259 (87,319)	32,426 (64,230)	24,748 (99,134)	10,097 (41,411)
Total retirement income	95,646 (119,683)	101,522 (90,427)	95,862 (131,825)	86,115 (91,159)
Pre-retirement income	112,565 (113,944)	118,555 (90,206)	113,457 (124,492)	99,587 (87,289)
Number of observations	1,710	365	1,105	240

Table 3. Summary Statistics for Projected Pre-Retirement and Retirement Income, by WorkStatus after Age 62

Note: Each cell reports the mean, with standard deviation in parentheses. *Source*: Authors' estimates from the *Health and Retirement Study* (2002-2016).

		Work status after age 62		
	Full	Any	Only	
	sample	nontraditional	traditional	No further
		work	work	work
Projected replacement rate	0.79	0.83	0.78	0.81
Trojected replacement face	(0.29)	(0.29)	(0.28)	(0.31)
Target replacement rate	0.74	0.74	0.73	0.74
Target replacement face	(0.05)	(0.05)	(0.05)	(0.05)
Ratio of actual to target	1.08	1.13	1.06	1.10
Ratio of actual to target	(0.40)	(0.42)	(0.38)	(0.43)
Share of workers below 90 percent of target	0.36	0.31	0.39	0.32
share of workers below 90 percent of target	(0.48)	(0.46)	(0.49)	(0.47)
	-0.06	-0.09	-0.04	-0.07
Retirement security gap	(0.29)	(0.30)	(0.28)	(0.31)
At-risk group (below 90 percent of target)				
Projected replacement rate	0.51	0.53	0.51	0.50
riojected replacement fate	(0.10)	(0.10)	(0.10)	(0.11)
Target replacement rate	0.74	0.75	0.73	0.75
Target replacement face	(0.05)	(0.05)	(0.05)	(0.05)
Ratio of actual to target	0.69	0.71	0.70	0.67
Ratio of actual to target	(0.13)	(0.13)	(0.13)	(0.15)
Patiromont acquirity can	0.23	0.22	0.22	0.25
Kentement security gap	(0.10)	(0.10)	(0.10)	(0.11)
Number of observations	1,710	365	1,105	240

Table 4. Average Projected Replacement Rates, by Work Status after Age 62

Note: Each cell reports the mean, with standard deviation in parentheses. *Source:* Authors' estimates from the *Health and Retirement Study* (2002-2016).

	No more work	Any nontraditional work	Only traditional work
Retirement security gap	-0.084**	-0.060	0.145***
(target RR-actual RR)	(0.04)	(0.04)	(0.05)
	0.012	-0.052***	0.040*
In(AIME)	(0.02)	(0.02)	(0.02)
N/-1-	0.008	0.015	-0.022
Male	(0.02)	(0.03)	(0.03)
Mamiad	0.021	0.044	-0.065**
Married	(0.02)	(0.03)	(0.03)
Widowad	0.025	-0.007	-0.017
widowed	(0.05)	(0.05)	(0.06)
Dlash	0.026	0.013	-0.040
Ыаск	(0.04)	(0.04)	(0.05)
Uignonia	-0.040	0.020	0.019
Hispanic	(0.03)	(0.05)	(0.06)
	0.115	-0.049	-0.066
Other non-white	(0.09)	(0.08)	(0.09)
Logg them US	0.258***	-0.051	-0.207***
Less than HS	(0.07)	(0.04)	(0.07)
US graduate	0.089***	-0.026	-0.063*
HS graduate	(0.03)	(0.03)	(0.04)
0	0.078**	-0.016	-0.061
Some college	(0.03)	(0.03)	(0.04)
Poor health	0.502***	-0.058	-0.444***
	(0.11)	(0.07)	(0.10)
Q-16	-0.091***	0.326***	-0.235***
Self employed	(0.03)	(0.06)	(0.06)
Household income	· /	. /	. /
(excl. personal earnings)	0.000	-0.003*	0.003
in \$10,000s	(0.00)	(0.00)	(0.00)
Number of observations	. ,	1,710	· · · ·

Table 5. Marginal Effects from Multinomial Logit Regression of Nontraditional and TraditionalWork after Age 62

Notes: Standard errors are in parentheses. * p<0.05 ** p<0.025 ***p<0.005. *Source*: Authors' estimates from the *Health and Retirement Study* (2002-2016).

			Work status after age 62 among at-risk sample		
	Full sample	At-risk sample	Any nontraditional work	Only traditional work	No further work
Replacement rate at ages 67-68	0.801	0.632	0.678	0.646	0.472
	(0.629)	(0.517)	(0.323)	(0.599)	(0.195)
Increase in replacement rate	0.001	0.122	0.154	0.139	-0.031
	(0.605)	(0.517)	(0.331)	(0.598)	(0.211)
Net change in share who are below 90 percent of target					
	14.6pp	-24.28pp	-34.81pp	-22.81pp	-13.21pp
Number of observations	836	302	75	187	40

Table 6. Increase in Replacement Rate from Age 61-62 to Age 67-68, by Work Status After Age62

Note: Each cell reports the mean, with standard deviation in parentheses.

Source: Authors' estimates from the Health and Retirement Study (2002-2016).

Independent variable	Full sample	At-risk sample
	-0.135*	-0.196***
Any nontraditional work	(0.0717)	(0.0591)
	-0.141***	-0.144***
Only traditional work	(0.0508)	(0.0517)
Detiment consists and stars (1.(2)	0.662***	0.382
Retirement security gap at ages 61-62	(0.134)	(0.409)
Mala	-0.0205	-0.0142
Male	(0.0519)	(0.114)
Marriad	0.0518	0.0627
Married	(0.0954)	(0.136)
Widowed	-0.181	-0.406
widowed	(0.159)	(0.262)
Dlask	0.104**	0.184**
Бласк	(0.0481)	(0.0878)
Hispania	0.0374	0.0489
Inspane	(0.0547)	(0.0676)
Other non white	-0.322	0.153
other non-white	(0.286)	(0.115)
Less than HS	0.145***	0.0415
	(0.0517)	(0.0849)
HS graduate only	0.0641	-0.107
Ins graduate only	(0.0601)	(0.0855)
Some college	0.119**	0.000753
Some conege	(0.0586)	(0.0670)
Fair or poor health	-0.0276	-0.0579
	(0.671)	(0.0617)
Self employed	-0.0683	0.0404
Sen-employed	(0.155)	(0.151)
Household income excl. personal	0.0103***	-0.0165
earnings (\$10,000s)	(0.0027)	(0.0109)
Constant	0.0142	0.207
	(0.0953)	(0.112)
Number of observations	836	302
Adjusted R-squared	0.11	0.047

Table 7. Linear Regression Results for Retirement Security Gap at Ages 67-68

Note: Standard errors are in parentheses. * p<0.05 ** p<0.025 ***p<0.005. Source: Authors' estimates from the *Health and Retirement Study* (2002-2016).



Figure 1. Prevalence of Nontraditional Work, by Replacement Rate at Ages 61-62

Source: Authors' estimates from the Health and Retirement Study (2002-2016).

Figure 2. Prevalence of Nontraditional Work, by Retirement Security Gap at Ages 61-62



Source: Authors' estimates from the Health and Retirement Study (2002-2016).

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