Current and desired job characteristics of older workers and their effects on retirement

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EXTENDED ABSTRACT

The share of older individuals in the total population has been increasing because mortality and fertility rates have been declining in recent decades, and this trend will likely continue. Consequently, it has been argued that it would be beneficial if people worked longer and delayed retirement. Longer work lives would help individuals maintain their pre-retirement consumption levels by increasing their lifetime earnings. It may also relieve some of the financial pressures on entitlement programs such as Social Security, Medicare and Medicaid. Lastly, because of the relative shortage of younger workers, employers may also benefit from finding ways to retain some of their older employees.

There are, however, barriers for people to delay their retirement. Physical and cognitive abilities decline with age, and depending on the *characteristics* of older workers' jobs, it may be difficult for some to remain productive at advanced ages (Hudomiet, Hurd, Rohwedder, and Willis, 2018). Older workers may also differ from their younger peers in terms of preferences for various job attributes. It is therefore important to know what types of jobs older workers want, what is available to them, and how the Human Resource practices of firms, such as offering flexible work hours, would affect older workers' retirement decisions.

In this paper we present results from a recent survey fielded in the RAND American Life Panel (ALP) that queried older workers about their current, desired, and expected job characteristics; as well as about how certain job characteristics would affect their retirement decisions. Some of the questions are qualitative, others allow quantifying the effect of a certain factor on the timing of retirement. Notably with respect to a variety of job attributes, we use a novel methodology called *Subjective Conditional Probabilities*, discussed in Hudomiet, Hurd, and Rohwedder (2018).

In the first part of the paper we document older workers' current job characteristics. Workers were asked to rate their current jobs along 14 dimensions, such as physical or cognitively demands and the social climate of the workplace. Moreover, the survey also asked whether workers' employers would allow them to reduce their hours to part-time if they wanted to, whether their employers would allow them to flexibly choose their work hours (while maintaining the required total number of hours), and other characteristics.

To elicit workers' desired job characteristics, we asked workers to rate a hypothetical job that they would look for sometimes after age 60 (or in the future if they were older than 60) across the same 14 dimensions they used to rate their current jobs. We analyze the deviations between current and desired job characteristics. In addition, using 12 of these items we created the following three aggregate scores, each ranging from zero to one:

1. Cognitive job index (mean = 0.686, sd = 0.227)
2. Physical job index (mean = 0.281, sd = 0.318)
3. Social job index (mean = 0.684, sd = 0.209)

Larger numbers indicate stronger demand for the characteristics. Table 1 shows the mean of these indices in workers' current and desired future jobs by their current labor force status. Older workers' current jobs score relatively high on the cognitive and social indices, and score low on the physical index. Their desired future jobs score lower on cognitive demands, even lower on physical demands, and a bit higher on the social index. This means that older workers desire to work in cognitively and physically less demanding jobs but they seek more social engagement. Compared to full-time employees, part-time and self-employed workers are currently in less cognitively demanding jobs, but the differences between current and desired future jobs are qualitatively similar.

Table 1. Workers' current and desired future job characteristics, ALP, Age 50-69

		Cognitive job		Physical job		Social job	
	N	current	future	current	future	current	future
Full-time employees	727	0.727	0.575	0.261	0.136	0.688	0.718
Part-time employees	227	0.572	0.507	0.319	0.143	0.664	0.732
Self-employed	200	0.669	0.582	0.311	0.173	0.694	0.725
All workers	1154	0.686	0.563	0.281	0.144	0.684	0.722

We will investigate how the discrepancy between current and desired job attributes vary by individual characteristics, such as socio-economic status, family situation, health, cognitive ability, personality

traits, as well as a rich set of qualitative indicators of workers' job and retirement preferences. We will also augment this analysis with other job characteristics from the survey.

In the second part of the paper we will quantify the effect of several specific job characteristics on the timing of retirement, using Subjective Conditional Probabilities. Quantifying the causal effect of job characteristics on retirement has been challenging, because it is very hard to find exogenous variation in the job characteristics available to older workers. Even though there is large heterogeneity in job attributes, this heterogeneity is strongly selective: Workers in "good jobs" tend to enjoy more perks than workers in "bad jobs." Moreover, randomized controlled trials are rarely available in this line of research.

The Subjective Conditional Probability questions ask individuals about the chances that they would work after age 70 conditional on different factors, such as having flexible work hours or less physically demanding jobs. These questions estimate the *subjective causal effect* of job characteristics (or any other factors). In our previous working paper we examined the properties of Subjective Conditional Probabilities, and found them to pass several consistency checks. Based on those results, we concluded that Subjective Conditional Probabilities are promising tools to study retirement related outcomes when natural experiments or RCTs are not available.

Table 2. The subjective causal effect of various job characteristics on working past age 70, ALP, Age 50-69, Workers, unweighted

	Probability of working past age 70		
	No condition	With condition	Subjective causal effect, ([2] - [1])
	[1]	[2]	[3]
Employer offers flexible schedule	17.6	32.8	15.2
Become self-employed	28.1	40.0	11.9
Job not stressful	35.9	46.9	11.0
Job requires no physical effort	35.4	45.8	10.3
Short commute	30.0	40.1	10.1
Job requires no concentration	35.8	42.2	6.4
Work from home	32.6	41.7	5.8
Employer offers part-time	32.1	36.9	4.8

Table 2 shows preliminary results on the subjective causal effects of job characteristics. We found that flexible hours, becoming self-employed, reduced stress and physical effort, and reduced commuting

times had the largest effects on retirement: The probability of working after age 70 would increase by about 10-15 percentage points (from the base of about 18-36% depending on the job characteristic) if people had jobs with these characteristics. In contrast, the subjective causal effects of having part-time jobs, the ability to telecommute, and having jobs that required little to no concentration, were small.

Our next step will be to analyze heterogeneity in these effects. Because the subjective causal effects are available on the individual level, we will use them as left-hand side variables in OLS regressions. We are particularly interested in variation by labor force status, socio-economic status, and workers' current job characteristics, which may shed light on the effectiveness of different interventions on different segments of the workforce. When possible, we will compare our estimates to cross-sectional correlations between job characteristics and retirement in order to learn about the nature and extent of selection bias in the simple cross-sectional models.

References

Hudomiet, P., Hurd, M.D., Rohwedder, S. (2018). The Causal Effects of Economic Incentives, Health and Job Characteristics on Retirement: Estimates Based on Subjective Conditional Probabilities. Working Paper, presented at the 2018 Working Longer and Retirement Conference at SIEPR.

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