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MRDRC WP 2023-461

UM20-01

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April 2023

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Acknowledgements

The research reported herein was performed pursuant to a grant from the U.S. Social Security Administration (SSA) funded as part of the Retirement and Disability Research Consortium through the University of Michigan Retirement and Disability Research Center Award RDR18000002-02. The opinions and conclusions expressed are solely those of the author(s) and do not represent the opinions or policy of SSA or any agency of the federal government. Neither the United States government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of the contents of this report. Reference herein to any specific commercial product, process or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply endorsement, recommendation or favoring by the United States government or any agency thereof.

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Job Demands and Social Security Disability Insurance Applications

Abstract

We use data from the Health and Retirement Study to identify the effect of job demands on applications for Social Security Disability Insurance and Supplemental Security Income benefits and to assess whether these job demands have been changing among older (ages 51 to 61) workers. We find that workers in jobs with physical demands — physical effort, stooping, heavy lifting — are more likely to apply for disability benefits, controlling for workers' age, education, marital status, and health. We find that other job characteristics that we can measure — requiring good eyesight, concentration, and dealing with people; and being stressful and becoming more difficult — have little effect on disability benefit applications. We do not find a reduction in the physical demands of jobs held by older workers over our 1992 to 2016 sample period. When we control for workers' education, they have increased. More in line with expectations, we find older workers' jobs increasingly require good eyesight, concentration, and dealing with people, and weaker trend increases in stressfulness or increasing difficulty of the job. Together, these findings suggest that changing job requirements are unlikely to be an important driver of changing disability benefits applications in the foreseeable future.

Citation

Brown, Charles, John Bound, and Chichun Fang. 2023. "Job Demands and Social Security Disability Insurance Applications." Ann Arbor, MI. University of Michigan Retirement and Disability Research Center (MRDRC) Working Paper; MRDRC WP 2023-461. https://mrdrc.isr.umich.edu/publications/papers/pdf/wp461.pdf

Authors' acknowledgements

This paper uses SSA restricted data made available to the authors through contract RDA #2019-069.

Introduction

The Social Security Disability Insurance (SSDI) program is an important protection for workers unable to continue working but not yet old enough to qualify for retirement benefits. Over the past few decades, the program has experienced dramatic changes in the rate of new awards for SSDI benefits. Between 2000 and 2010, this rate increased from 4.7 to 7.4 awards per 1,000 workers, and then fell back to 4.9 by 2019 (and continued to fall after the onset of COVID-19 in 2020), as Figure 1 shows. Adjusting for changes in the age-sex composition of the workforce softens the increase in the 2000s, but accentuates the decline in the 2010s.

Changes in new SSDI awards depend on changes in applications and on the fraction of approved applications. Figure 2 makes it clear that the trends in new awards are driven by applications, as the approval rate fell in the 2000s and was essentially flat in the 2010s. New awards to disabled beneficiaries under the Supplemental Security Income (SSI) program have largely mirrored the SSDI patterns, though with a modest decline in the ratio of SSI to SSDI awards (see Figure 3). As one indication of the extent of uncertainty about future awards, Social Security Administration (SSA) OASDI Trustees projections to year 2100 include age-adjusted award rates that center on 5.0 but range from 3.9 to 5.8 (Figure 1).

If these different trends over the two most recent decades cannot be explained by demographic (age-sex) changes, what factors can account for them? While no one factor seems likely to provide a full explanation, changes in the job demands faced by workers are one potentially important possibility, and the one that we highlight in this paper.

Technology not only changes how much we can produce — it also changes the demands that jobs make on workers. By substituting machines and energy for human power, technology plausibly reduces the physical demands of work. At the same time, cognitive demands may be increasing. While there is a significant literature on the relationship between job demands and retirement (e.g., Quinn 1978, Filer and Petri 1988; Hayward et al. 1989; Helppie-McFall et al. 2015; Angrisani et al. 2013, Hudomiet et al. 2021) there is much less about job demands and decisions to apply for disability benefits.[1] Thus, we begin by exploring the relationship between job demands and applications for disability benefits. Because the same standards are applied to disability claims by both SSDI and SSI, we consider applications to either program, and we use the shorthand "disability benefits" to include both SSDI and the SSI benefits for the blind or disabled.

The literature on job demands and retirement decisions measures job demands in two different ways. One is to use survey questions that ask workers about their jobs. The other is to match data on job characteristics from an external data source such as the O*NET to workers based on their occupations. Both approaches find that job characteristics matter for retirement.

We focus on worker self-reports by Health and Retirement Study (HRS) respondents. The HRS self-reports refer specifically to the job of the individual whose SSDI or SSI applications we can track. In contrast, occupation-linked measures are based on job characteristics of all workers with a given occupation code. Thus, if

[1] Indeed, in many of the retirement papers it is hard to tell if workers who stop working due to disability are included as retired or excluded from the analysis altogether.

employers tend to accommodate older workers who find their jobs more demanding — or, less formally, younger workers provide help to older co-workers — the occupation-based measures will miss this adaptation, while HRS will (at least in principle) take it into account. Moreover, because occupation-based measures by construction miss any within-occupation variation, it may be harder to separate out the effects of job characteristics that are correlated across occupations.[2] We acknowledge that using the worker reports has some disadvantages, too — the boundary between response categories (e.g., "most of the time" versus "some of the time") is likely to vary over time for an individual, and across respondents at one point in time.

The idea that technology should make jobs "easier" — at least in a physical sense — is intuitive. Autor et al. (2003) showed that shifts in the occupational distribution led to a large decline in the importance of manual tasks. Atalay et al. (2020) found that this trend is even stronger when one includes within-occupation changes. A decline in manual tasks seems likely to reduce the importance of physical demands on workers.

However, there is surprisingly little direct evidence on the extent to which physical or other job demands have changed over time, particularly for older workers. Johnson et al. (2011) found substantial declines in physical demands and increases in cognitive demands between 1971 and 2006, using occupation-linked O*NET job characteristics. More recently, Lopez Garcia et al. (2020) compared job requirements (taken from O*NET) matched (by occupation) to workers in the Current Population

[2] In an early study, Quinn (1978) notes that his Dictionary of Occupational Titles (DOT)-based measures are highly correlated, though he does not point to lack of within-occupation variation as a likely culprit. (DOT is a predecessor to O*NET.)

Survey in 2003 and 2018. They find that cognitive and sensory demands increased, while physical and psychomotor requirements fell. However, all four demands increased for workers with a high school degree or less. A strength of their study is that they capture the within-occupation changes in requirements over time (using the changing O*NET characterizations of jobs between years), and these turn out to be much more important than changes in the distribution of occupations. Thus, studies linking O*NET data to workers' occupations find physical demands decreased while cognitive demands increased. O*NET gives no information on whether job demands differ for older workers, who are most relevant for understanding trends in disability applications.

Studies based on worker reports are more varied. Johnson (2004) found rather mixed evidence of declines in physical demands, but stronger evidence that jobs had become more stressful and had grown more difficult among 55- to 60-year olds in 2002 relative to 1992, using self-reported job demand data from the first decade (1992-2002) of the HRS. On the other hand, Handel (2012) found no evidence that physical demands had decreased or that cognitive demands had increased between 1990 and 2010 in the European Union. Gaude et al. (2022) note that workers report relatively low levels of physical demands in new occupations, but high levels in fast-growing traditional areas, including commerce, hospitality, and health.

We begin by describing the HRS data that we use in our analyses in Section II. In Section III, we explore the role of job demands in the decision to apply for disability (SSDI or SSI) benefits. We find that workers in physically demanding jobs are more likely to apply for benefits. We find little evidence that other types of job demands matter. In Section IV, we focus on changes in job demands over time. We find little evidence that physical requirements of jobs have fallen; we do find that the job requirements often associated with nonmanual jobs have increased. We present conclusions in Section V.

Data

HRS is a longitudinal study that contains a nationally representative sample of the U.S. population 51 and older in the contiguous 48 states. The study started in 1992 and interviews its respondents every other year. The sample is regularly “replenished” to account for aging; that is, HRS adds 51- to 56-year-old respondents periodically to keep it nationally representative. Once a respondent enters the HRS, the longitudinal design follows the respondent until death or attrition.

For our analysis, we use data for respondents ages 51 to 61 from the 1992 to 2016 surveys. Given the longitudinal design of the HRS, a respondent may show up multiple times in our analytic sample. We chose age 61 as the upper limit because those 62 and older become eligible for early retirement under the regular old age benefits, and the incentive to apply for SSDI/SSI is likely to be different for those 62 and older.

Given the complexity of the process by which people can qualify for SSDI or SSI, we focus on a relatively simple and well-defined outcome, first time application, as our dependent variable. We exclude all respondents who had applied prior to their first interview with the HRS (i.e., the “baseline interview” in HRS terminology), because we do not have information about time-varying covariates to match those applications. We use the terms “survey year” and “survey wave” interchangeably to reflect the longitudinal design of the survey. Our dependent variable, $A_{it,}$ equals 1 if an individual’s first application occurred between survey wave *t* and wave *t+1*, and equals 0 if they did not apply in this time period. In order to relate this decision to the worker's job characteristics, we include only those who were employed at wave *t* or wave *t-1*; we select the job characteristics from wave *t* if our respondent was working then, and from *t-1* otherwise. Finally, an individual stops being part of the sample once they apply for either SSDI or SSI.

The HRS core survey asks respondents to what extent their current job requires physical effort; lifting heavy loads; stooping, kneeling, or crouching; good eyesight; concentration or attention; skill in dealing with other people; or working with computers. For each of these statements, respondents can answer "all or most of the time", "most of the time," "some of the time," or "none or almost none of the time." We decided to drop "working with computers" because it was not asked in 1994, 1996, and 1998. Respondents are also asked if they "strongly agree, agree, disagree, or strongly disagree" that their job requires "doing more difficult things than it used to" and "involves a lot of stress."

Additionally, in order to limit interview time, HRS only asks every working respondent the job demand questions every four waves (eight years), the most recent such wave is 2016. In other waves, respondents who have the same employer and job title as in the previous wave are not asked the job demand questions (the questions are always asked of new respondents and those who experienced employer or job title changes from the previous interview). In the respondent-waves where the job demand questions were not asked, we "filled forward" using the responses from the previous wave, essentially assuming that job demands do not change if employer and job title remain unchanged.

While HRS thus provides a wealth of information, using it presents challenges in creating parsimonious measures. We proceed in two steps. First, in order to transform the categorical responses to a single variable, we "z-scored" each — i.e., for each question, we assumed an underlying latent standard-normal variable and assigned to each response category the conditional mean of a standard-normal variate corresponding to that that category's segment of the normal distribution. For example, suppose 10% of the respondents answer "none or almost none of the time." The lowest 10 percent of the standard normal distribution corresponds to $z<-1.282$, so we recode "none or almost none of the time" to $E(z|z<-1.282)$. See Figure 4 for an illustration.

We then performed a factor analysis on the eight job characteristic scores and identified three factors. Both the "z-scoring" and factor analysis were done using year-specific sample weights.[3] Correlations among the job characteristics are in Table 1 and results of the factor analysis are in Table 2. Given the strong pattern of correlations evident in Table 1, the mapping into three factors is straightforward. The first factor was dominated by the three physical demands questions; the second by good eyesight, concentration, and dealing with people; and the third with doing more difficult things and stress.

We also included a measure of local area demand for labor, based on the composition of employment by industry in a worker's area and national changes in

[3] HRS oversamples Black and Hispanic respondents. Sample weights are designed to ensure the population representativeness of the weighted statistics.

industry demand, following Bartik's (1991) approach. We first used the American Community Survey (ACS) to estimate the employment share of each industry at the local (operationally defined as commuting zone, CZ) level as of 2016. We then used the Current Population Survey (CPS) to estimate the employment share of each industry at the national level in each year between 1992 and 2016. In our calibration, the "Bartik measure" in year *t* is the local industry share in 2016 interacting with the changes in industry shares between year *t* and 2016. We also know from the HRS which industry and what CZ a respondent resides in each survey year, so we know how much labor demand shock a respondent was facing in a given year by merging all sources of data. While we might have preferred a more direct measure of industry employment in each respondent's local area, the ACS is not available before 2004, and we judged the CPS sample size too small to support tabulations of employment by CZ.

Finally, we controlled for a number of other factors that are likely to affect the utility of working relative to not working and/or the probability of being eligible for disability benefits:

- sex: male, female;
- marital status: not married, married and spouse working, married and spouse not working;
- education: less than high school, high school grad, some college, and college grad;
- health (two categories): "good, very good, or excellent health" versus "fair or poor health"

- work limitations: indicator for those who report that an impairment or health problem limits the kind or amount of paid work they can do;
- age: dummy variables for single years of age; and
- year: dummy variables for year of interview.

Descriptive statistics of selected variables appear in Table 3. There are no surprises. The three job demands factors have mean zero and standard deviation of one by construction. The Bartik variable has zero mean by construction, too, and the standard deviation can be interpreted as a unit of change. Slightly more than half of the sample is female, reflecting the interplay of differences in labor force participation, mortality, and having previously applied for disability benefits. Fifteen percent of the sample is in fair or poor health, and 10% say that their health limits their ability to work.

Applying for SSDI or SSI

In Table 4, we present our logistic models predicting each individual's first application for disability benefits. Both men and women who are employed in jobs with high physical demands are more likely to apply for SSDI/SSI. This relationship is quantitatively important (as well as statistically significant): Those with jobs one standard deviation above the mean on this factor are 15.7% (men) or 11% (women) more likely to apply.

The second factor captures a collection of characteristics — need for good eyesight, mental concentration, and working with people — that we might think of as roughly characterizing office rather than blue-collar jobs. Results for this factor are smaller and not precisely estimated; signs differ between men and women. Workers who report their jobs have become more difficult or involve stress do not have appreciably higher application rates, either. While these last factors are often associated with earlier retirement, they do not map onto conditions that would qualify for disability benefits.

Collinearity among various job characteristics sometimes leads analysts to enter these one at a time. But our factors are, by construction, orthogonal to each other. Thus, for example, entering the second or third factor by itself does not change our conclusions about either variable.

The effects of local demand are right-signed but very imprecisely estimated, and the point estimates are small (a one standard deviation difference in this variable (0.001) corresponding to a 0.5% and 2.3% change in applications for men and women, respectively. We interpret this null finding as an indication of the weakness of our indirect measure of labor demand, rather than as reason to doubt that local labor markets influence DI applications.[4]

Those with more education are less likely to apply for disability benefits, a relationship that is stronger for women than men and particularly strong for college graduates (both male and female). Those who are married are less likely to apply, particularly if their spouse is working. Those in fair or poor health and those with a health condition that limits their ability to work are particularly likely to apply. Note that all of these covariates are measured at wave *t*, prior to any application for benefits.

In Table 5, we report the coefficients of our three working conditions factors when the sample is split by education as well as sex. Broadly speaking, the patterns we

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[4] There is ample evidence from administrative data that disability insurance applications respond to local labor market conditions (e.g. Lewin-VHI Inc. 1994; Stapleton et al. 1998; Black et al. 2002; Charles et al. 2018).

identified in Table 4 continue to hold within education groups. Workers in jobs that rate higher on the physical demands factor are more likely to apply for disability; there is little consistent evidence that higher scores for the other two factors matter. While comparisons of point estimates for a given factor across educational groups may be surprising (e.g., the greater effect of the physical factor on those with more education), none of these differences is statistically significant.

Our conclusion, then, is that workers in physically demanding jobs are more likely to apply for disability benefits, and this relationship is fairly large in practical terms. While the other factors may be important in older workers' retirement decisions, there is little evidence that they influence disability applications.

Trends in job demands

We now turn to the question of whether technological change, internationalization of production, and other changes in the economy have changed different types of job demands facing older workers. HRS is well suited for answering this question, because it has asked the same questions of a representative set of older workers for more than two decades.

For each job factor, we begin by asking how this factor changed for the average older male or female worker, not controlling for the worker's education, and then ask whether controlling for education changes the pattern we see in the data. Given that labor economists "always" control for education, it may seem odd to start with trends that do not do so. But the simplest hypothesis about how technology changes job demands is that it leads to reduced physical demands (machinery substituting for strength) but greater cognitive demands (in making and using the new machines). From that perspective, changing job demands and changing educational requirements are both reflections of the same underlying forces. We then ask how controlling for education changes the answer: Are changing job demands just reflecting changing educational attainment of the workforce, or are they changing independently? Finally, we look within our two educational groupings, to see if any changes in job requirements are limited to one segment of the education distribution.

Figure 5 plots mean values of our factor scores for men (left panel) and women (right panel) ages 51 to 61. Because 51-year-olds enter the sample only in 1992 and at six-year intervals (when HRS replenishes its sample by adding younger cohorts) thereafter, we estimated the simple regressions

$$\text{JobDemand Factor}_{it} = \alpha + \text{Year}_t \cdot \beta + \text{Age}_{it} \cdot \gamma + \varepsilon_{it}$$

and

$$\text{JobDemand Factor}_{it} = \alpha + \text{Year}_t \cdot \beta + \text{Age}_{it} \cdot \gamma + \text{Edu}_{it} \cdot \delta + \varepsilon_{it}$$

where Year, Age, and Education are all dummy variables.

The regressions are estimated with “adjusted sample weights” to make the weighted sample comparable over time. Although HRS is representative of the U.S. elder population in each survey wave, the underlying population might have changed in ways that potentially correlate with job demand. For example, among the U.S. population aged 51 and 61, both the mean age and education increased between 1992 and 2016. We adjusted the HRS sample weight to account for the change in sample compositions and eliminate the “compositional effect” (of variables that are used to produce HRS sample weights) on job demands.

We present the “Year” coefficients in Figure 5. Because the year coefficients bounce around from year to year, we fit trend lines through each plot. For both men and women, there is essentially no trend in the physical factor when we do not control for education, and an increasing trend for workers holding education constant. The latter trends are not trivial: Over the 24-year period included in the figure, physical demands increase by about 0.2 standard deviations for both men and women.

Looking separately at workers grouped by sex and education (Figures 6 and 7), we find this upward sloping trend in all four sex-education groups. If anything, it is more pronounced for relatively educated men.

Over our sample period, there is a clear upward trend in our second factor (eyesight, concentration, people skills) for both men and women (Figure 8). The trend amounts to about 0.2 standard deviations — slightly more for men, slightly less for women. Again, splitting the sample by education shows that the pattern applies to all four sex-education groups, though is slightly less pronounced for educated women (Figures 9 and 10)

We find relatively little trend in our third factor, difficulty and stress. A weak positive trend with no controls for education is attenuated when education is held constant (Figure 11). Within sex-education groups, the strongest trend is among women with at least some college, amounting to just over 0.1 standard deviations over our sample period (Figures 12 and 13)

In summary, we find no evidence of a decline in physical demands of the jobs held by our respondents, even when we focus on the high-school-or-less group for whom physically demanding jobs are more common. Job demands that might be associated with nonmanual work, such as eyesight, concentration, and people skills have increased. Evidence that older workers are finding their jobs more difficult or stressful over time is weak, except for relatively educated women.

Conclusions

In this paper, we analyze HRS data on older workers to identify the effect of job demands on applications for disability benefits and to assess whether these job demands have been changing for older workers. We find that workers in jobs with physical demands — physical effort, stooping, heavy lifting — are more likely to apply for disability benefits, controlling for workers' age, education, marital status, and health. A one standard deviation difference in our physical factor translates into a 16% increase in the likelihood of applying for men, and an 11% increase for women. We find relatively little evidence that jobs requiring good eyesight, concentration, or skill in dealing with people, or jobs that are perceived as stressful or increasingly difficult have any similar effect on disability applications. While these aspects of jobs may be relevant for retirement decisions, they are less important for disability benefit applications because they do not map very easily onto the conditions that make one "disabled" and therefore eligible for benefits.

Perhaps our most surprising finding is the lack of any reduction in the physical demands of jobs held by older workers — indeed, when we control for workers' education they have increased. More in line with expectations, we find that older workers' jobs increasingly require good eyesight, concentration, and dealing with people, and weaker trend increases in stressfulness or increasing difficulty of the job.

The lack of reduction in physical demands is surprising when compared to expectations (including our own) based on the trend decline in manual jobs, but less surprising when one considers data from European countries that should be subject to the same trends. One potential explanation is that a worker's assessment of the physical demands of a job involves a comparison between the activity objectively required by a job (e.g., how many pounds the worker must lift, and how often) and a subjective standard for what constitutes "heavy" lifting. It is therefore possible that objective demands have been trending downward, in line with expectations, but standards for what constitutes "heavy" have also trended downward. In any case, given that worker reports of physical demands are strongly related to subsequent application for disability benefits, better understanding of objective and subjective determinants is an important area for further research.

Taken together, our findings suggest that changing job requirements are unlikely to be an important driver of disability applications in the foreseeable future. Given the evidence that job characteristics predict retirement decisions, they may be more important for retirement decisions for those eligible to claim retirement benefits starting at age 62.

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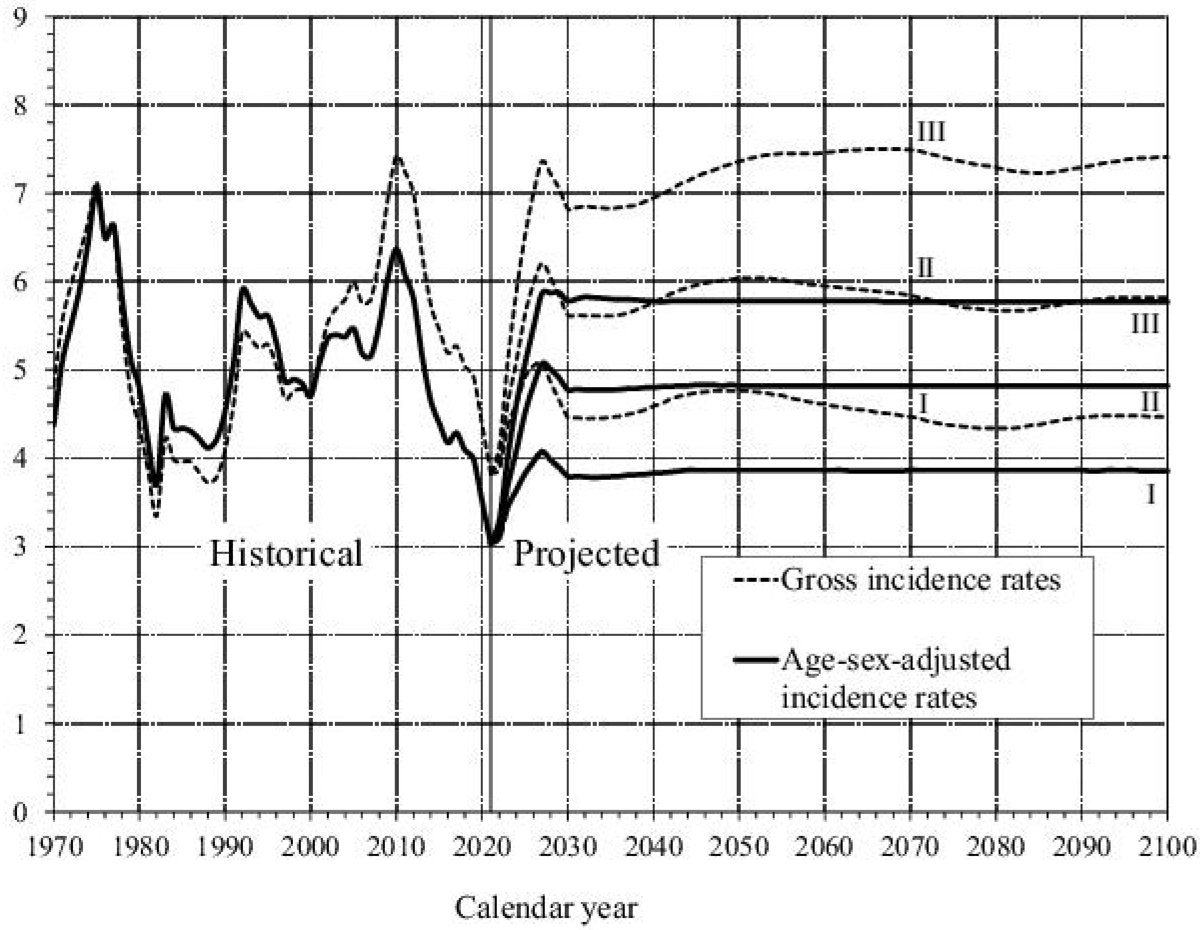
Figures and tables

Figure 1: DI disability incidence rates, 1970 to 2100

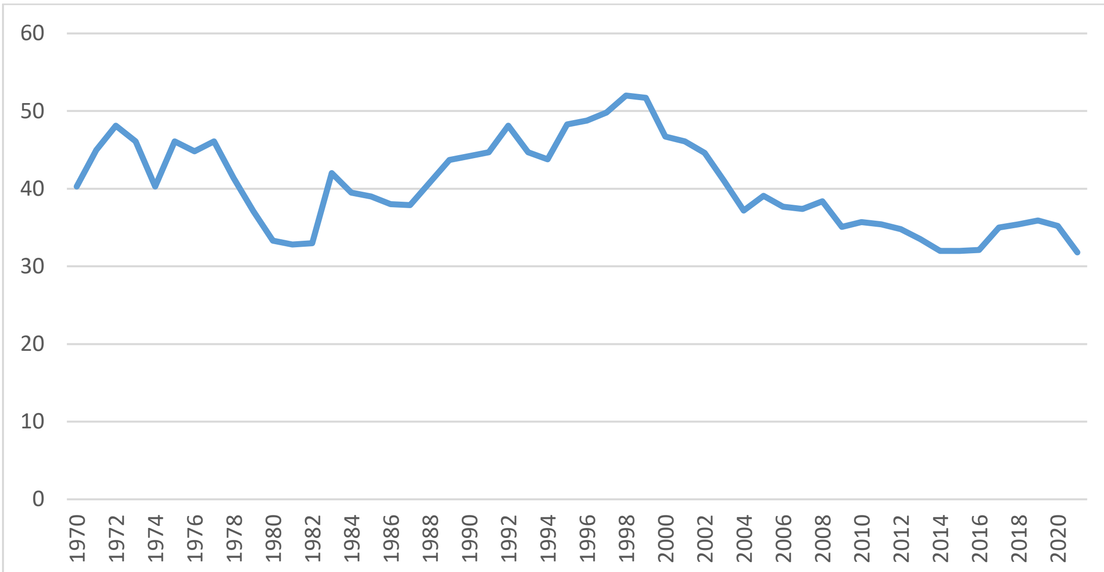
Awards per thousand disability-exposed



Source: The 2022 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, https://www.ssa.gov/oact/TR/2022/V_C_prog.html#216727

Figure 2: Award rates

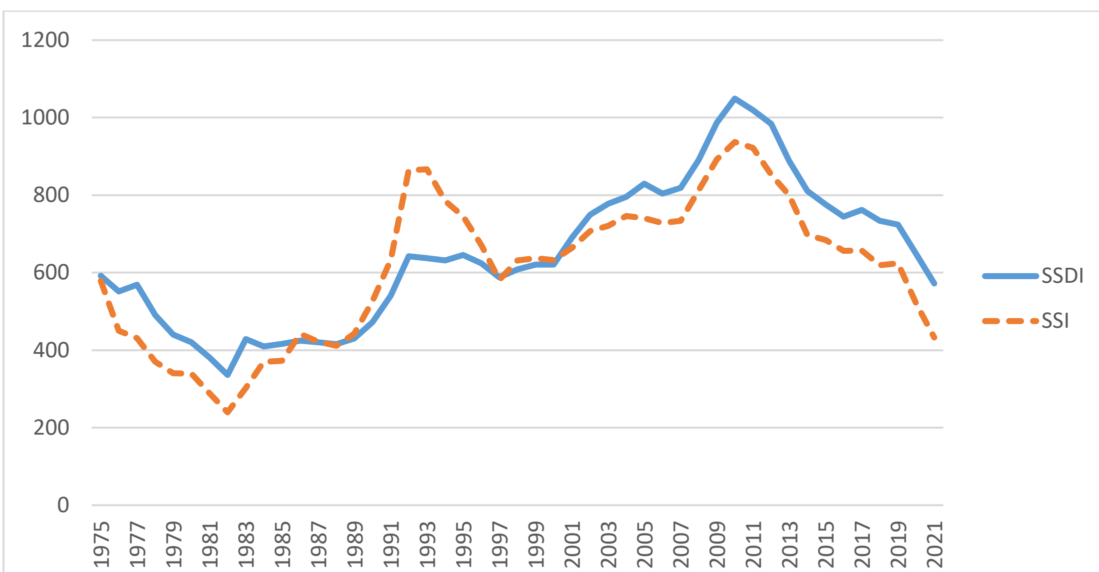
Ratio of Awards per 100 applications



Source: Social Security Annual Statistical Supplement, 2022

Figure 3: SSDI and SSI awards

Awards in thousands



Source: Social Security Annual Statistical Supplement, 2022

Figure 4: Z-scoring of categorical variables

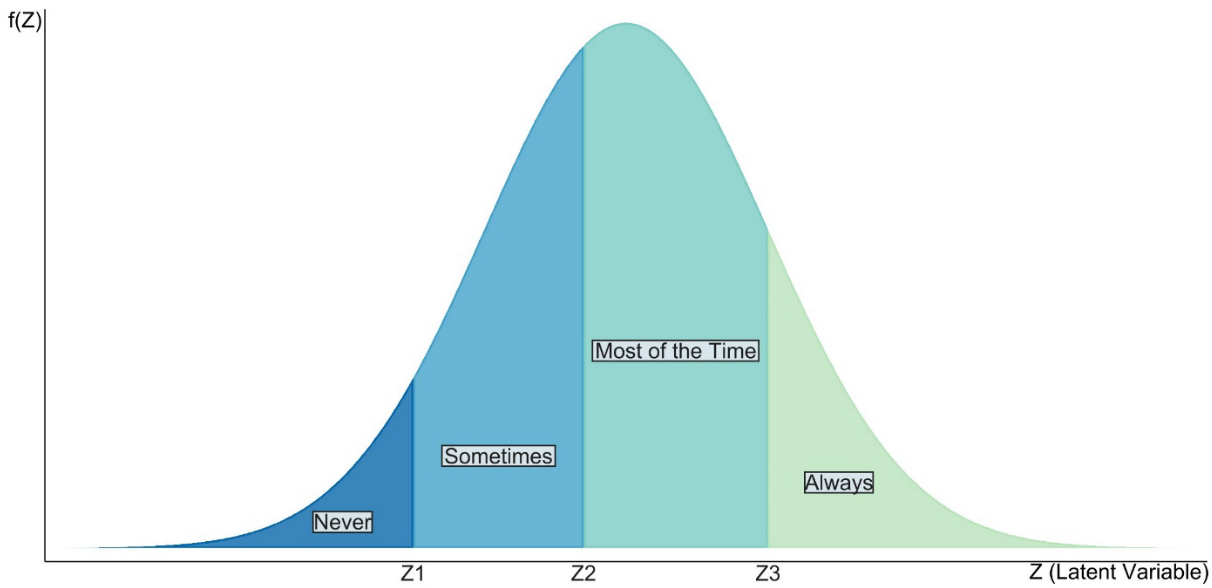


Figure 5: Trends in the physical effort, heavy lifting, stooping factor

Figure 6: Trends in the physical effort, heavy lifting, stooping factor, men

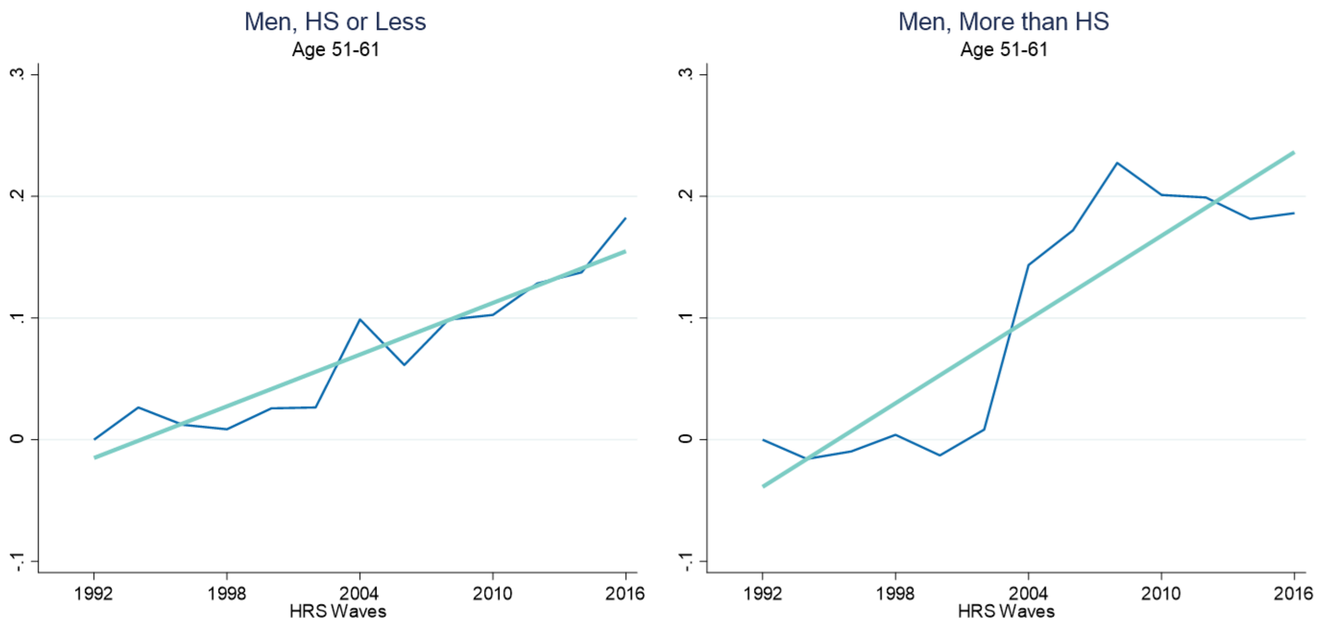


Figure 7: Trends in the physical effort, heavy lifting, stooping factor, women

Figure 8: Trends in eyesight, concentration, and people skill factor

Figure 9: Trends in eyesight, concentration, people skill factor, men

Figure 10: Trends in eyesight, concentration, people skill factor, women

Figure 11: Trends in the becoming harder, stress factor

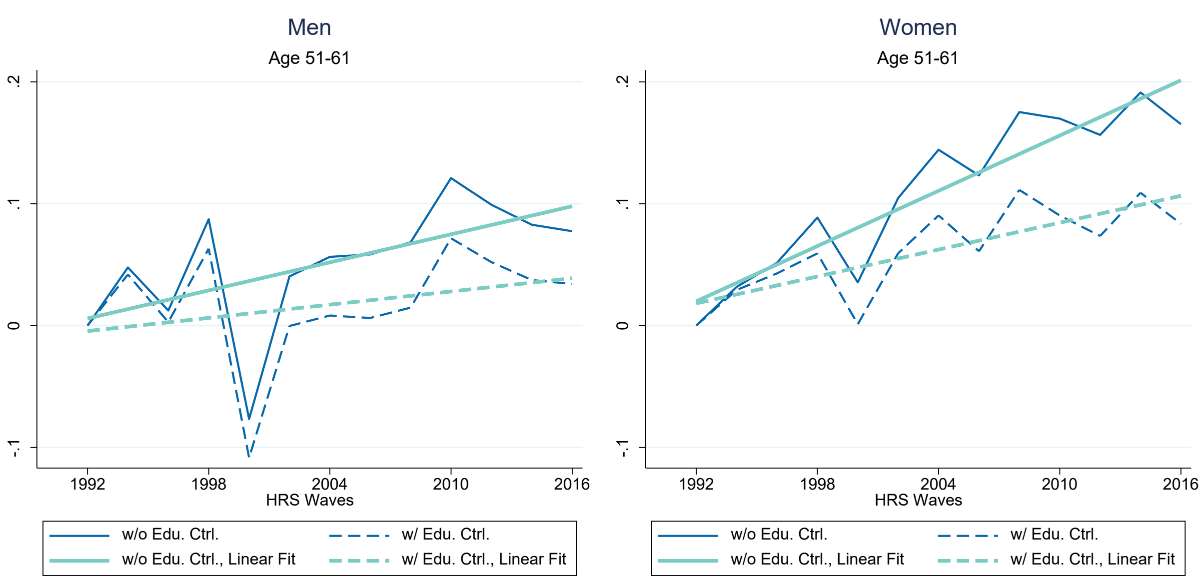


Figure 12: Trends in the becoming harder, stress factor, men

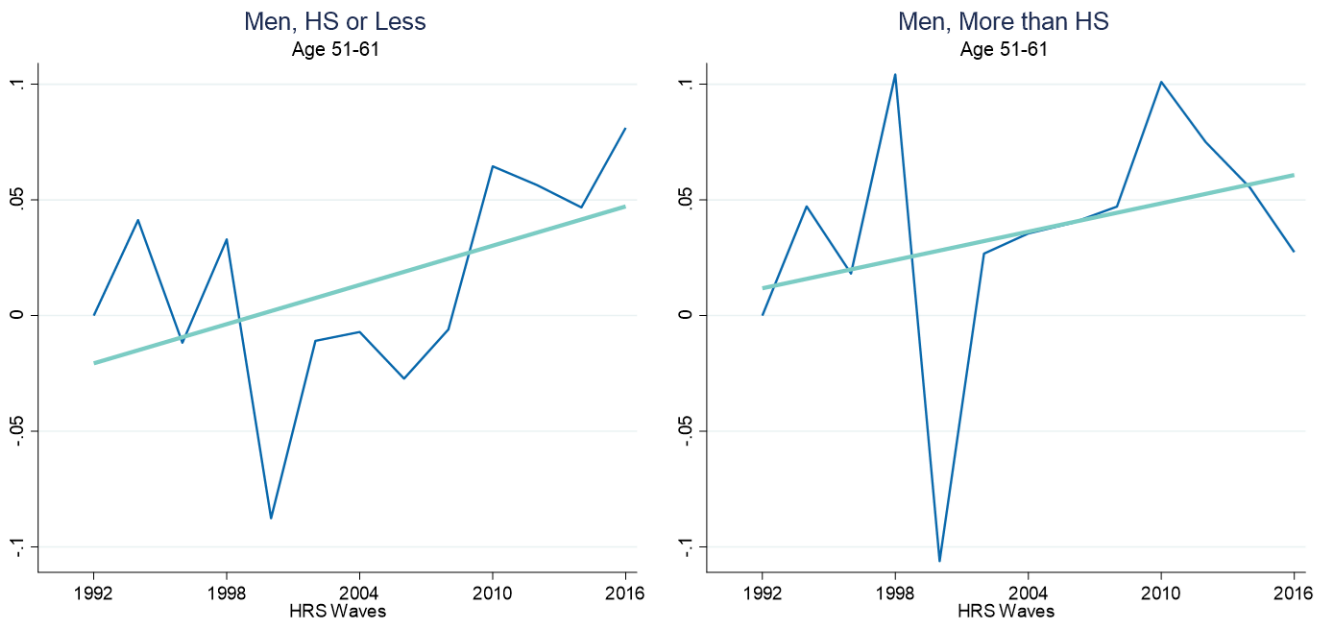


Figure 13: Trends in the becoming harder, involving stress factor, women

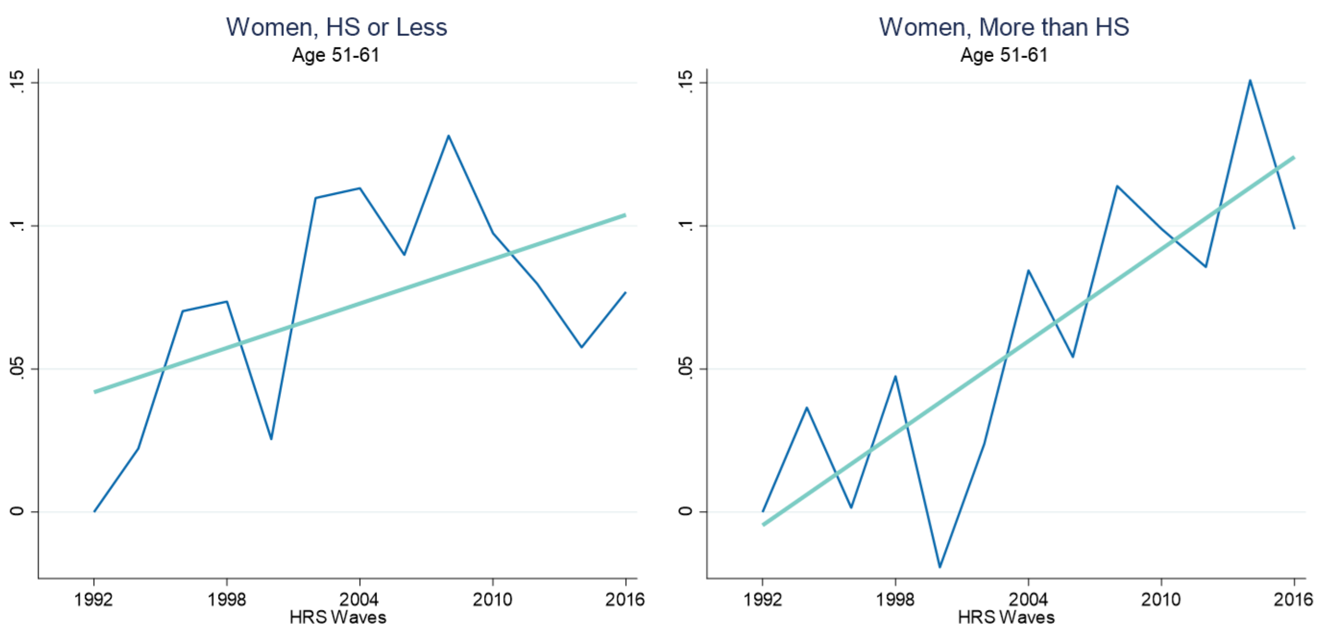


Table 1: Correlation of job demands

	1	2	3	4	5	6	7	8
1 Physical Effort	1.00							
2 Heavy Lifting	0.66	1.00						
3 Stooping	0.62	0.62	1.00					
4 Good Eyesight	0.04	0.01	0.05	1.00				
5 Concentration	-0.01	-0.03	-0.02	0.35	1.00			
6 People Skills	-0.04	-0.08	-0.02	0.16	0.28	1.00		
7 Becoming Harder	0.01	0.02	0.01	0.07	0.15	0.11	1.00	
8 Involving Stress	0.00	-0.00	0.01	0.08	0.23	0.20	0.44	1.00

Table 2: Results of factor analysis

	Factor 1	Factor 2	Factor 3
1 Physical Effort	0.87	0.01	0.00
2 Heavy Lifting	0.87	-0.04	0.01
3 Stooping	0.85	0.02	-0.00
4 Good Eyesight	0.07	0.77	-0.05
5 Concentration	-0.02	0.77	0.18
6 People Skills	-0.09	0.55	0.23
7 Becoming Harder	0.02	0.11	0.84
8 Involving Stress	-0.00	0.13	0.83

Table 3: Selected descriptive statistics

	A: Respondent Level Variables		
Variable	**Category**	**Count**	Proportion
Female	Not Female	9,834	48.15%
	Female	10,591	51.85%
Level of Education	Less than High School	3,585	17.55%
	High School	6,334	31.01%
	Some College	5,017	24.56%
	College or Above	5,409	26.48%
	Unknown	80	0.39%
	B: Respondent-Year Level, Categorical Variables		
Variable	Category	Count	Proportion
Marital Status	Not Married	17,561	29.70%
	Working Spouse	29,362	49.66%
	Non-Working Spouse	12,209	20.65%
Health Status	Excellent/Very Good/Good Health	51,542	84.44%
	Fair/Poor Health	9,498	15.56%
	C: Respondent-Year Level, Continuous Variables		
Variable	Number of Observations	Mean	Std. Dev.
Factor1	56,960	0	1
Factor2	56,960	0	1
Factor3	56,960	0	1
Work Limitation	59,118	0.106	0.154
Local Demand	61,056	0	0.001

There are 20,425 respondents and 61,056 respondent-year observations. Respondent-year observations with missing data are dropped from the analysis. Statistics are not weighted.

Table 4: Logit estimates for first application for SSDI or SSI, by sex

Variable	Men		Women	
Physical (Factor 1)	0.157	**	0.110	**
	(0.051)		(0.043)	
Eye_Con_Peo (Factor 2)	-0.054		0.041	
	(0.045)		(0.043)	
Diff_Stress (Factor 3)	0.047		-0.001	
	(0.049)		(0.043)	
Local Demand ("Bartik Measure")	-5.490		-23.281	
	(34.787)		(34.117)	
Education = High School	-0.040		-0.316	**
	(0.125)		(0.116)	
Education = Some College	-0.171		-0.352	**
	(0.140)		(0.129)	
Education = College Grad or Above	-0.577	**	-0.883	**
	(0.180)		(0.164)	
Married, Spouse Working	-0.198	*	-0.391	**
	(0.115)		(0.098)	
Married, Spouse Not Working	-0.078		-0.119	
	(0.126)		(0.118)	
Health = Fair or Poor	0.584	**	0.712	**
	(0.138)		(0.126)	
Health Limits Work	3.179	**	3.233	**
	(0.223)		(0.202)	
Age Dummies	Yes		Yes	
Survey year Dummies	Yes		Yes	
Observations	25,509		29,652	

* = p<.10, ** = p<.05

Table 5: Logit Estimates of Effects of Job Factors for First Application for SSDI or SSI, by Sex and Education

Education Group	Variable	Men		Women	
High School or Less	Physical (Factor 1)	0.127	**	0.151	**
		(0.064)		(0.051)	
	Eye_Con_Peo (Factor 2)	-0.102	*	0.065	
		(0.055)		(0.051)	
	Diff_Stress (Factor 3)	0.090		0.010	
		(0.063)		(0.054)	
	Observations	11,962		14,362	
Some College or More	Physical (Factor 1)	0.227	**	0.117	
		(0.078)		(0.074)	
	Eye_Con_Peo (Factor 2)	0.052		-0.059	
		(0.081)		(0.084)	
	Diff_Stress (Factor 3)	-0.020		-0.071	
		(0.079)		(0.068)	
	Observations	13,547		15,290	

Note: Control variables noted in Table 4 (except for education) were included but not reported.

* = p<.10, ** = p<.05