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Health, Disability, and the Evolving Nature of Work

Barbara Butrica and Stipica Mudrazija



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Introduction

- Motivation
 - In recent decades, the nature of work has changed profoundly, especially as it relates to the impact of technology on how we perform job tasks
- Objectives
 - This paper examines how the relationship of job demands with work-related disability prevalence and disability applications changed over time and what the impact may be on the relationship between health and the outcomes of interest

Background

- Previous studies generally find a strong correlation between health and disability and job demands, where disability and work-limiting health conditions are more prevalent among workers in physically demanding jobs
- They also find a strong correlation between DI receipt and job demands, where more physically demanding jobs are associated with higher rates of DI receipt and non-routine cognitive job demands are associated with lower rates of DI receipt
- Evidence is emerging, however, that health limitations may be preventing fewer workers than in the past from successfully performing their essential job tasks

Data and Analytic Approach

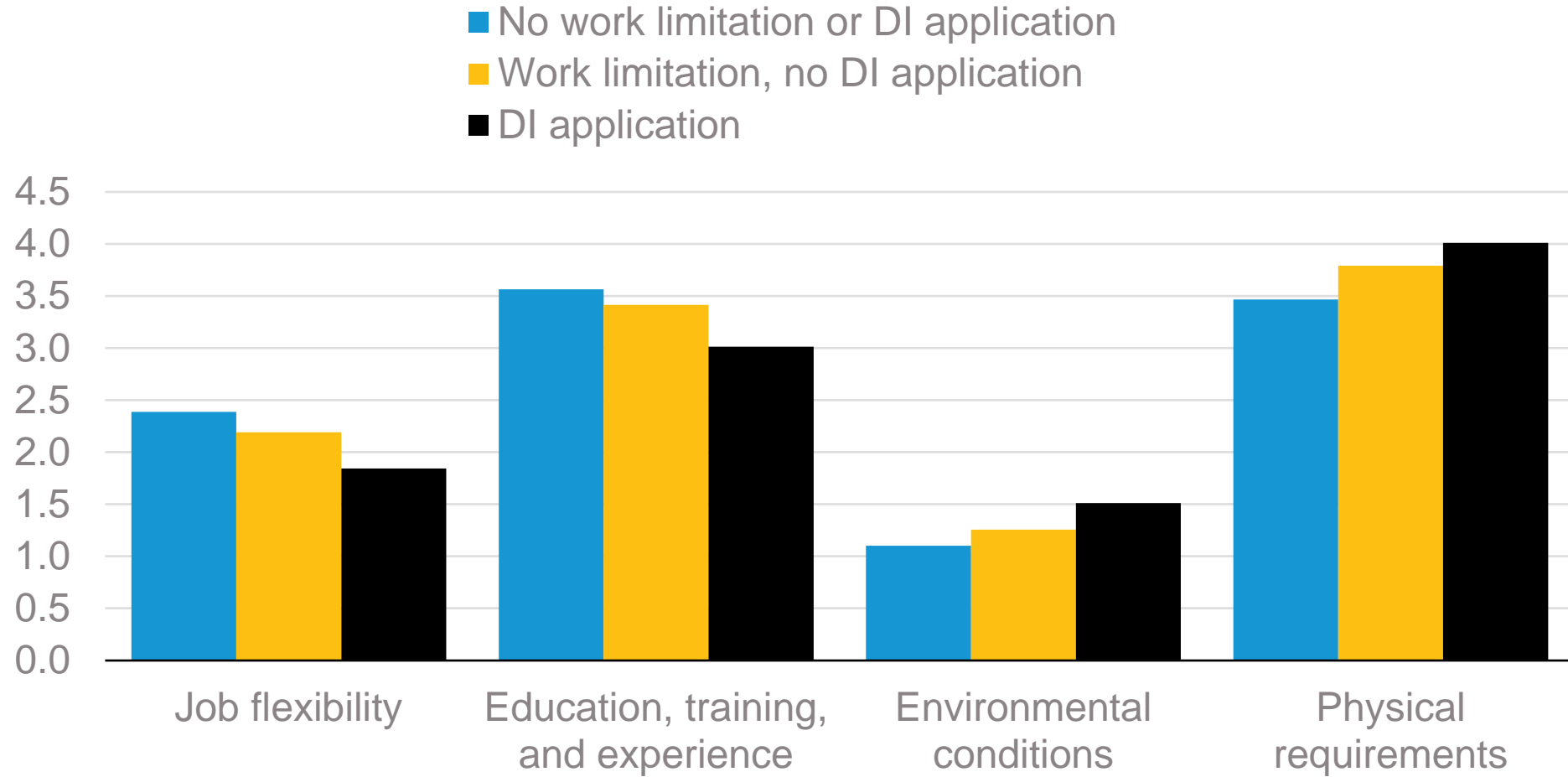
- Data: Health and Retirement Study 1998-2016; ORS; O*NET
- Sample: Adults aged 55-61
- Key measures: ORS- and O*NET-based indices of job requirements
- Approach:
 - Descriptive overview of trends in occupational requirements
 - Bivariate probit analysis of the link between work limitation and DI applications with job requirements
 - SEM analysis of the link between work limitation and DI applications with job requirements

Descriptive Results

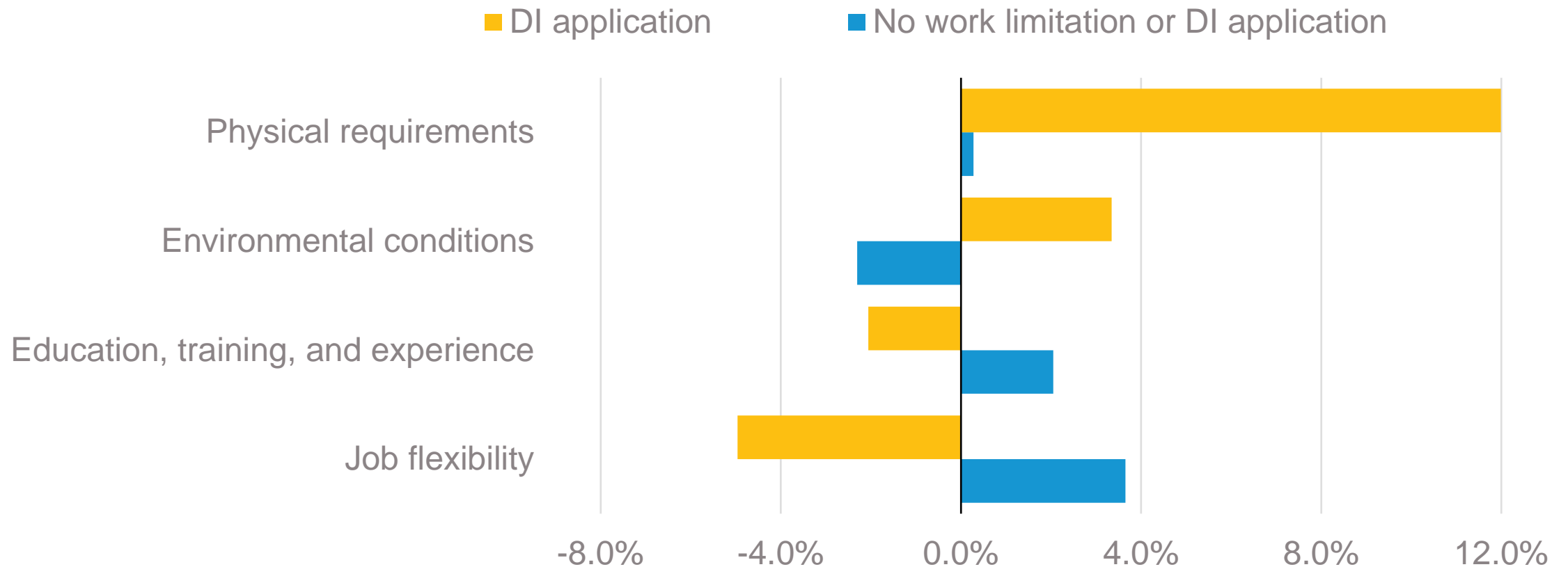
Mean ORS job requirement indices among adults ages 55 to 61, by year

	Job flexibility	Education, training, and experience	Environmental conditions	Physical requirements
1998	2.24	3.45	1.21	3.61
2010	2.38	3.54	1.05	3.42
2016	2.38	3.57	1.15	3.54

Mean ORS job requirement indices among adults ages 55 to 61, by work limitation and DI application status



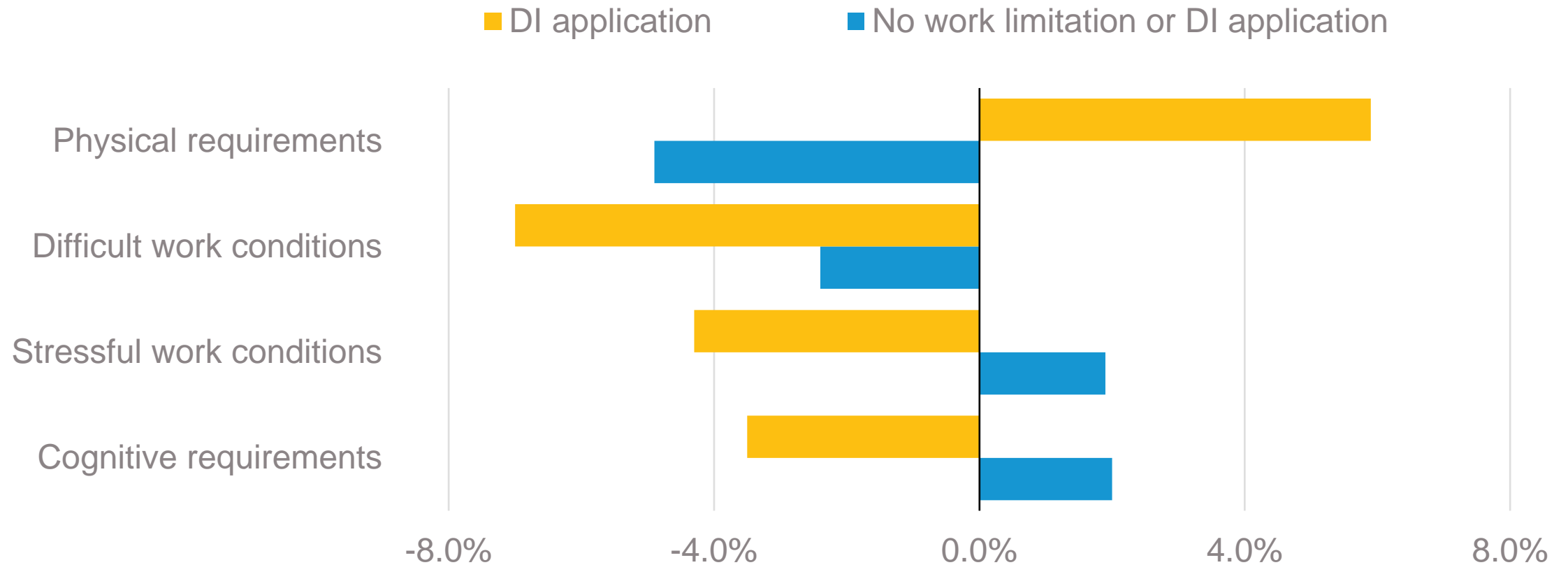
Change in mean ORS indices values relative to before the Great Recession



Percentage of adults ages 55 to 61 in jobs with specified O*NET demands, by year

	Physical requirements	Cognitive requirements	Difficult work conditions	Stressful work conditions
1998	36.0	73.6	22.8	58.9
2010	29.5	79.1	17.5	63.3
2016	30.3	79.3	20.3	63.1

Change in the percentage of adults ages 55 to 61 in jobs with specified O*NET demands relative to before the Great Recession



Preliminary and Partial Inferential Results

Bivariate probit results for the ORS-based analysis

	(1) All		(2) Pre-GR		(3) Post-GR	
	Work limitation	DI application	Work limitation	DI application	Work limitation	DI application
Job flexibility	-0.0263*	-0.0665***	-0.0188	-0.0410+	-0.0316+	-0.0938***
Environmental conditions	-0.0038	-0.0123	0.0008	-0.0105	-0.0092	-0.0140
Physical requirements	0.0137*	0.0189*	0.0060	0.0066	0.0215*	0.0323*
N	26,621		14,361		12,260	

Bivariate probit results for the O*NET-based analysis

	(1) All		(2) Pre-GR		(3) Post-GR	
	Work limitation	DI application	Work limitation	DI application	Work limitation	DI application
Physical requirements	0.057*	0.072*	0.007	0.005	0.109**	0.149**
Cognitive requirements	-0.015	-0.118***	-0.024	-0.105*	-0.006	-0.137**
Difficult work conditions	-0.030	-0.008	0.007	0.048	-0.069	-0.072
Stressful work conditions	-0.041	-0.046	-0.014	-0.041	-0.068	-0.040
N	28,316		15,172		13,144	

Discussion and Next Steps

- Relative to non-applicants, DI applicants are increasingly select with respect to the occupational requirement profiles of their jobs
- Change in the occupational mix of the U.S. economy may partially account for fewer-than-expected DI applicants since fewer Americans work in highly physically demanding jobs and more are working in jobs with a higher degree of job flexibility and higher cognitive demands
- Limitation: Current results only rely on inter-occupational differences (i.e., assume current job requirements are static within occupations over time)
- Next steps:
 1. Refine bivariate probit analysis (e.g., by examining interactions between health and other personal characteristics and job requirements)
 2. Use O*NET historic information to examine the impact of changes in job requirements *within* occupations