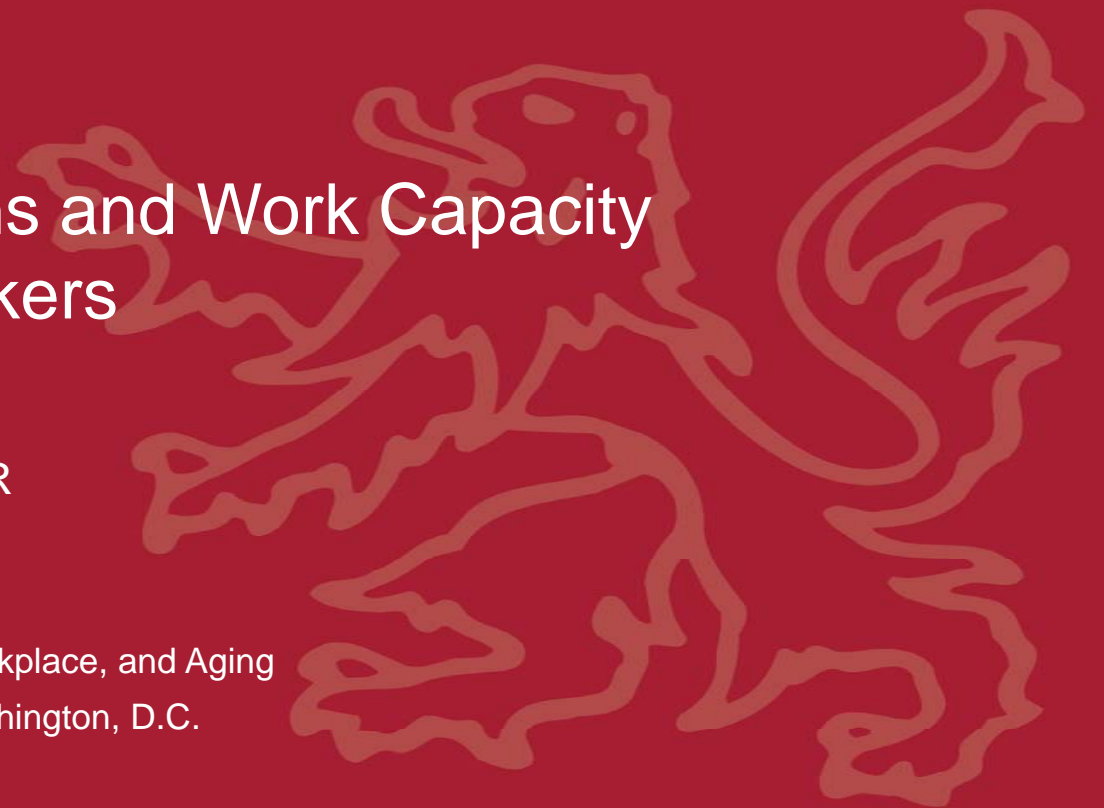


Working Conditions and Work Capacity among Older Workers

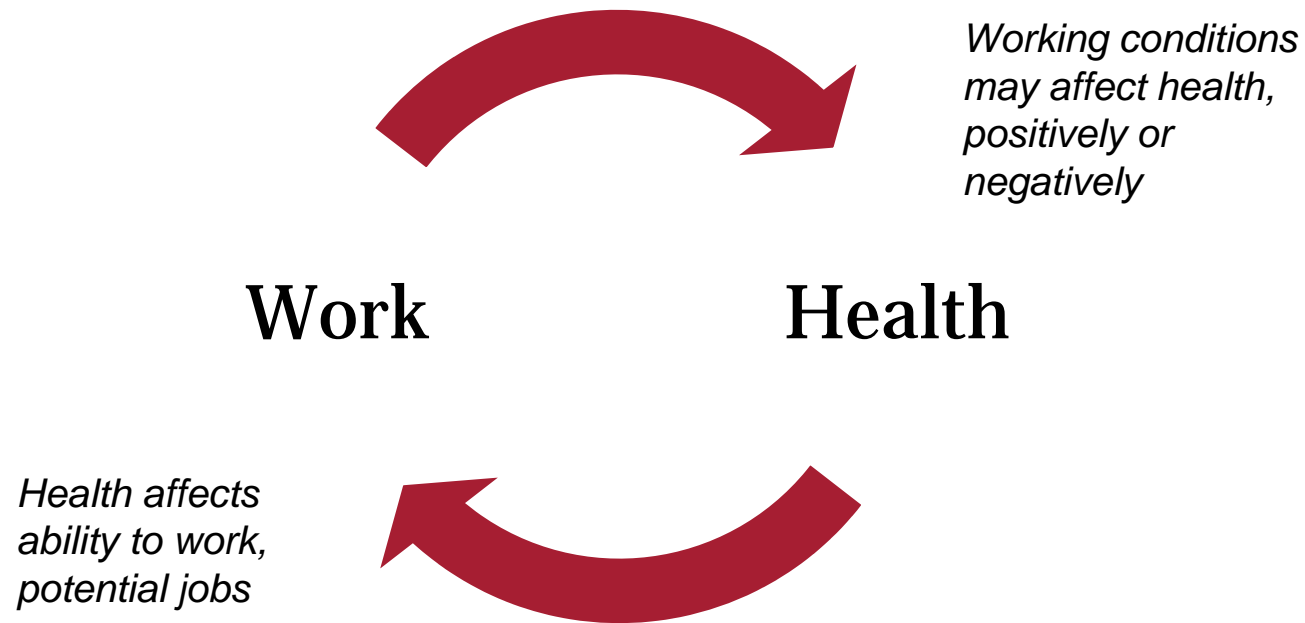
NICOLE MAESTAS

Harvard University and NBER

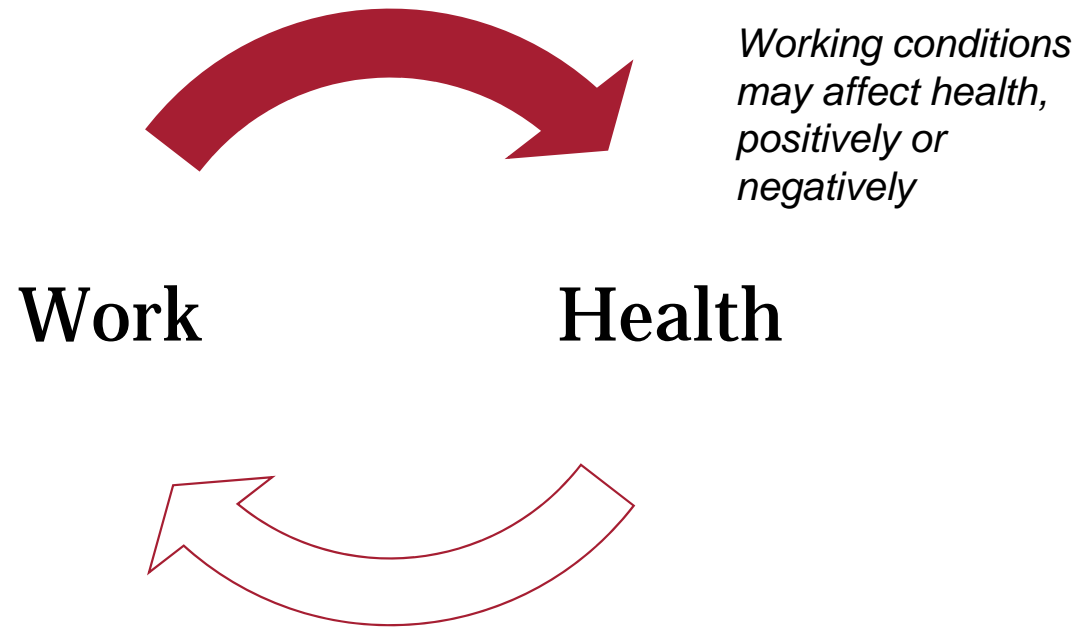
Planning meeting on Work, The Workplace, and Aging
National Academy of Sciences, Washington, D.C.
September 5-6, 2019



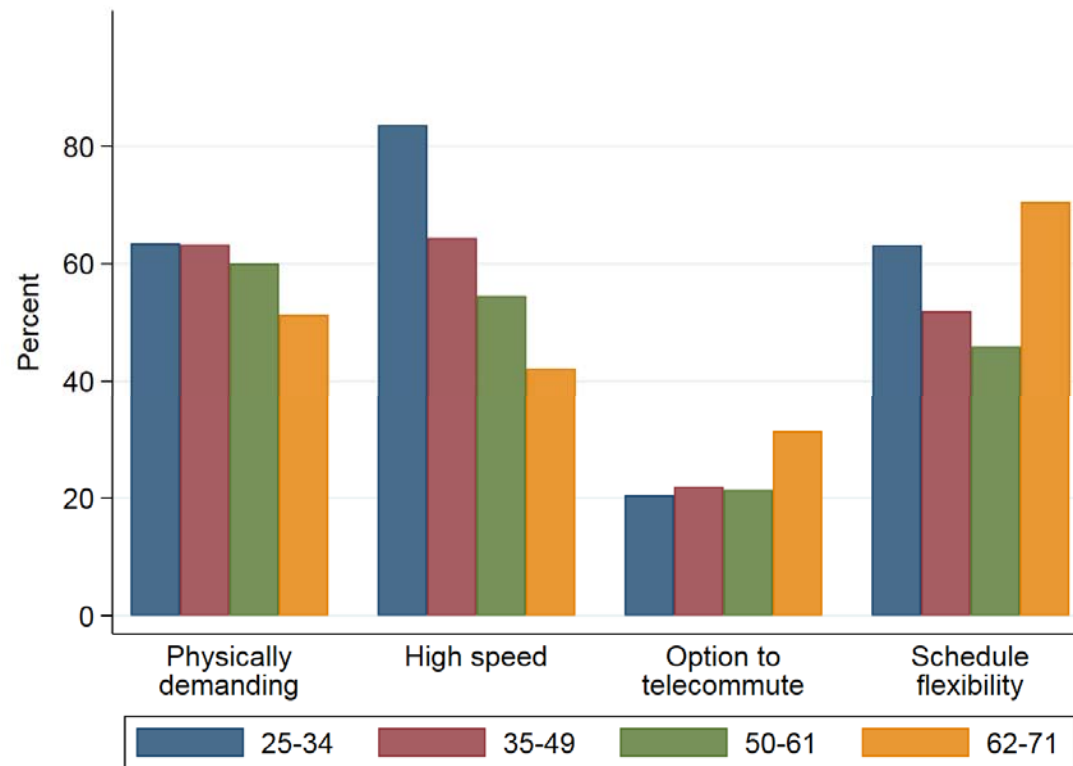
Complex Relationship between Work and Health



Complex Relationship between Work and Health

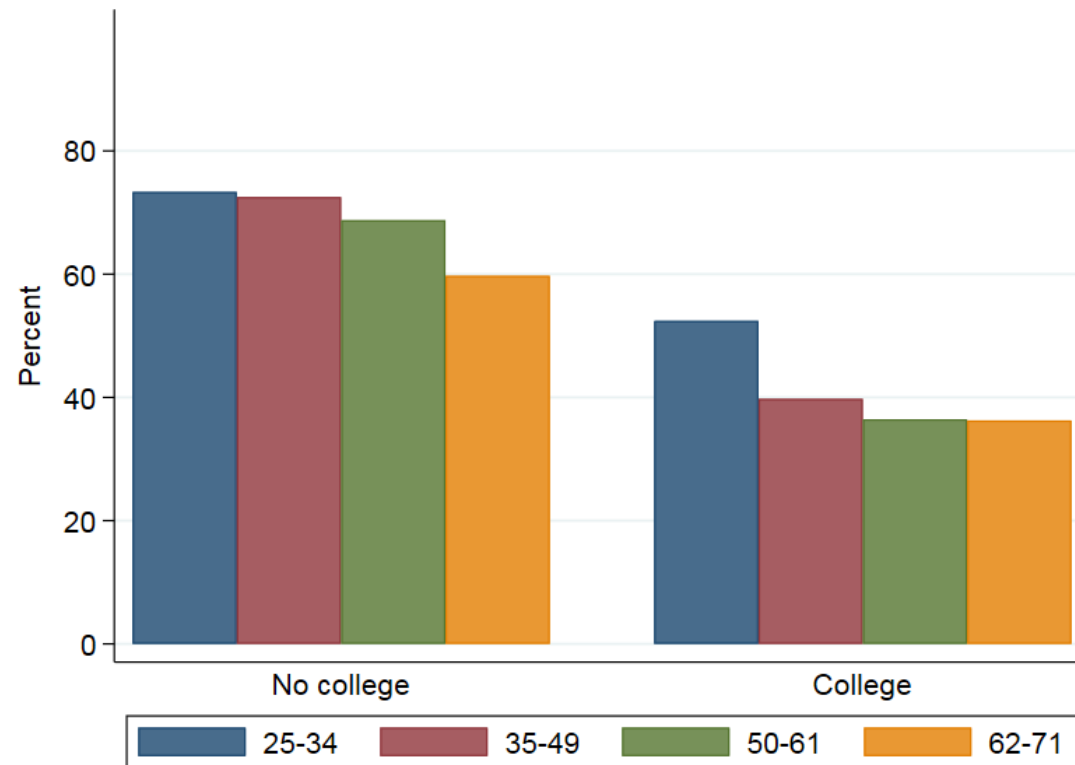


Older Workers Tend to Have “Better” Working Conditions than Younger Workers



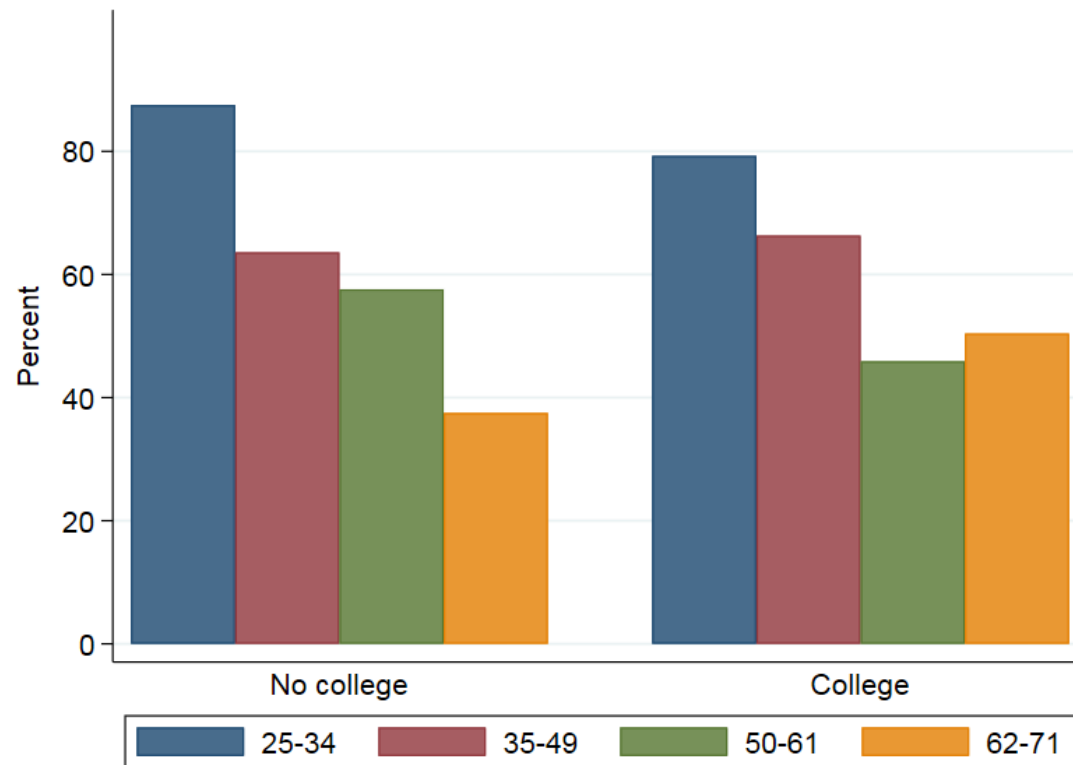
Source: Maestas, Mullen, Powell, Wachter, and Wenger (2018), “The American Working Conditions Survey data”.

Older Workers Report Slightly Less Physically Demanding Jobs



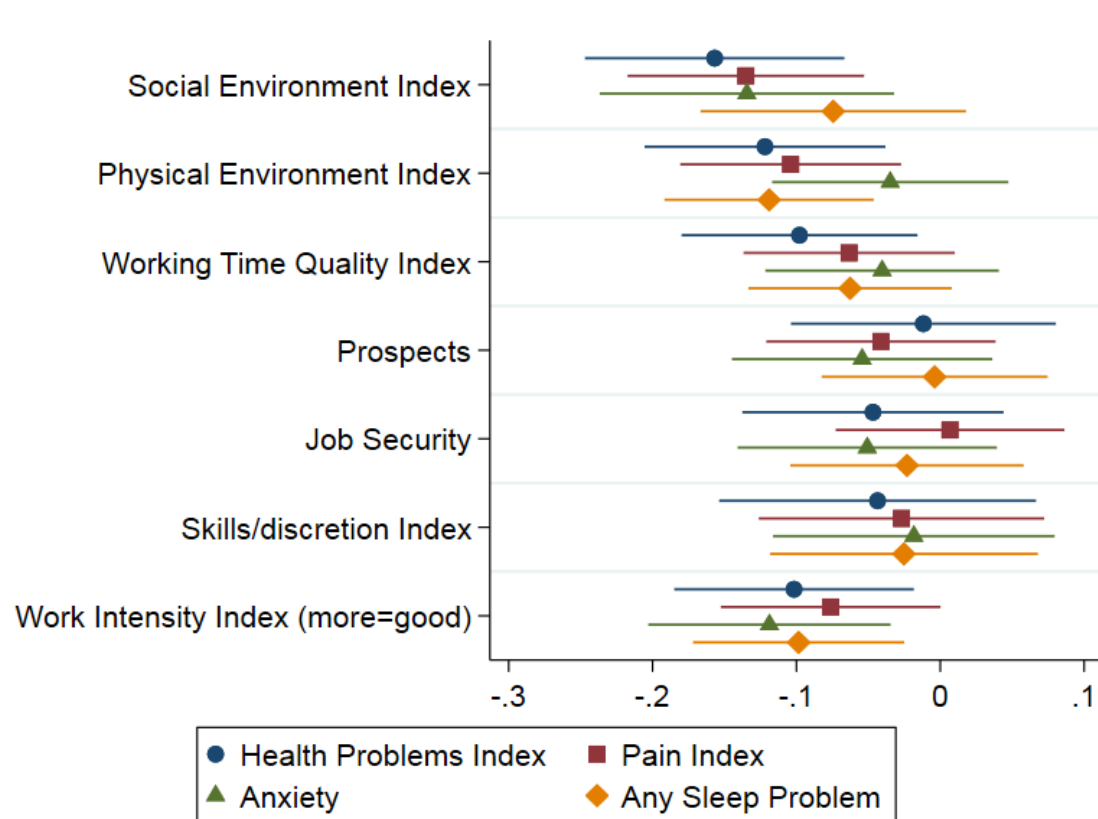
Source: Maestas, Mullen, Powell, Wachter, and Wenger (2018), "The American Working Conditions Survey data".

Older Individuals Work at High Speeds Less Frequently



Source: Maestas, Mullen, Powell, Wachter, and Wenger (2018), "The American Working Conditions Survey data".

Better Working Conditions Associated with Fewer Health Problems



Health problem indices regressed on working conditions indices

- Higher values on health problem indices mean worse health
- Higher values on working conditions indices mean “better” conditions
- All variables shown are standardized to mean 0 and sd 1
- Controls (not shown): sex, marital status, age 50+, college degree, age 50+ X college, earnings deciles
- N = 2070

Source: Work in progress by Maestas, Mullen, Powell, Wachter, and Wenger based on “The American Working Conditions Survey data” (2015).

Eliciting Preferences Through Hypothetical Job Choice Experiments

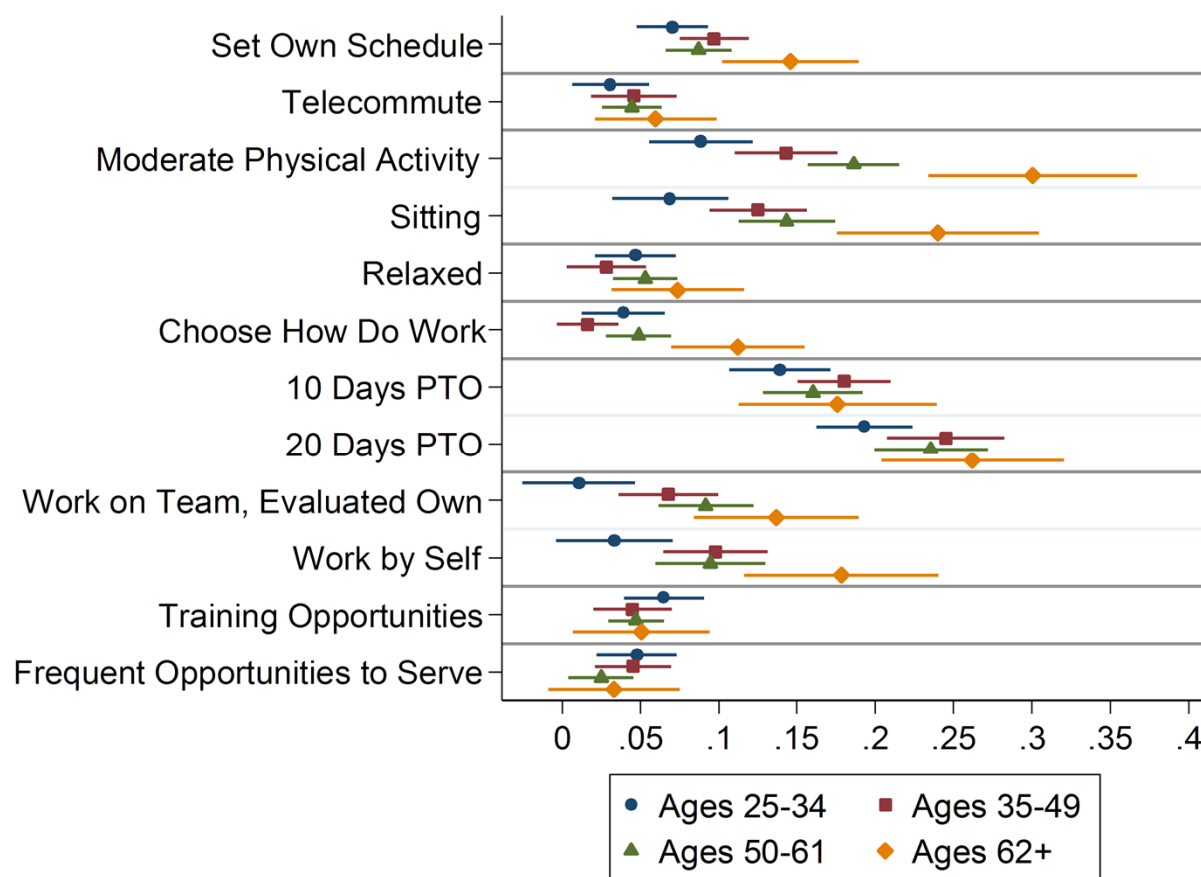
First question of the survey for respondent '5121056:1' Imagine you are offered the two jobs shown below. Except for the characteristics highlighted below, please assume the jobs are the same in all other ways, including on characteristics not listed in the table. You may scroll over the characteristics to see their definitions. Please review the jobs and indicate below whether you prefer Job A or Job B.

	Job A	Job B
Hours	Part-Time - 20 hours per week	Part-Time - 20 hours per week
Control Over Hours	Set your own schedule	Set your own schedule
Option to Telecommute	No	No
Physical Demands	Moderate physical activity	Heavy physical activity
Pace	Relaxed	Relaxed
Independence	You can choose how you do your own work	Your tasks and procedures are well-defined
Paid Time Off (Vacation and Sick Leave)	None	None
Working with Others	Mainly work by yourself	Mainly work by yourself
Training	You have the skills for this job and there are opportunities to gain valuable new skills	You have the skills for this job and there are opportunities to gain valuable new skills
Impact on Society	Occasional opportunities to make a positive impact on your community or society	Occasional opportunities to make a positive impact on your community or society
Pay	\$18.50 per hour (\$370 per week)	\$19.50 per hour (\$390 per week)

	Strongly Prefer Job A	Prefer Job A	Prefer Job B	Strongly Prefer Job B
Which job do you prefer?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Older Workers Value Job Amenities Much More Than Younger Workers



What do older workers want?

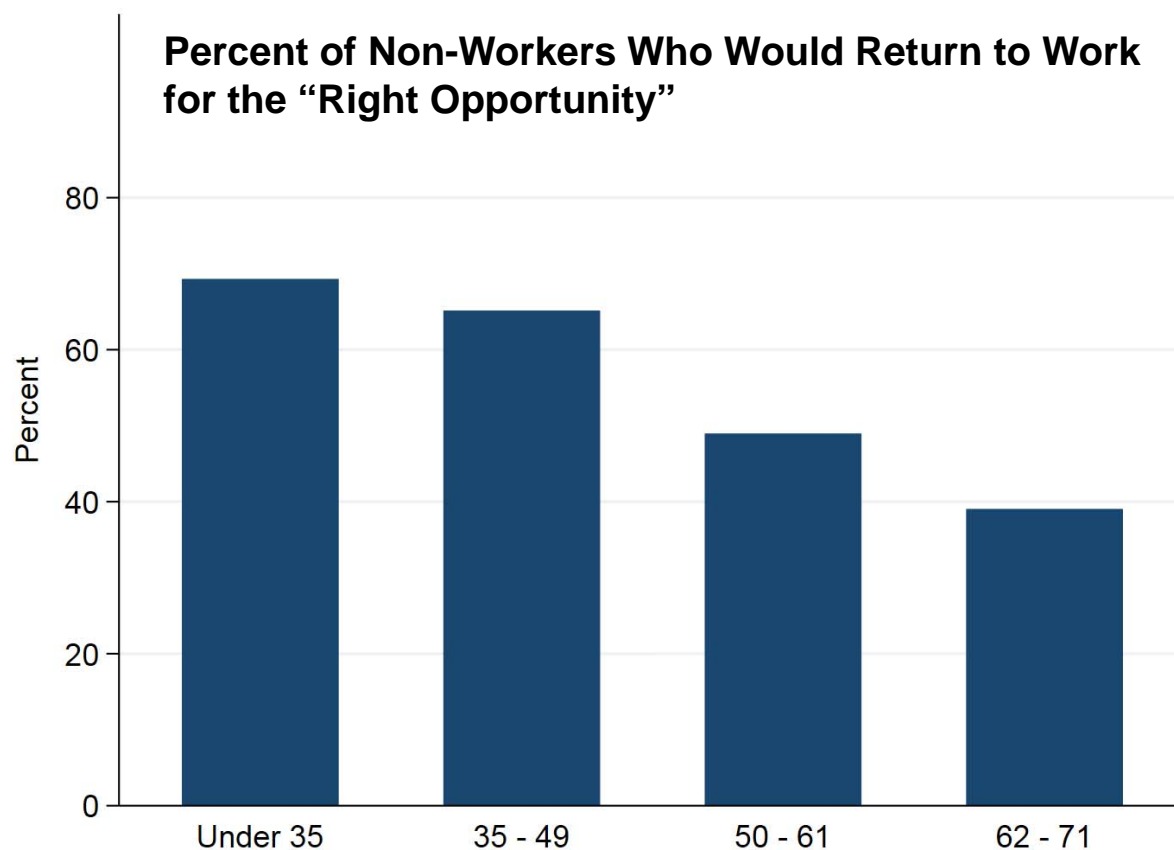
- Paid time off (17% for 10 days)
- Less physically demanding work (30% for moderate, 24% sitting)
- Schedule flexibility (15%)
- Autonomy (11%)
- Relaxed pace (6%)
- Working alone v. team (18% of wage)

Best job v. worst equivalent to 74% wage increase (compared to 48% for youngest)

They also value telecommuting, training opportunities and meaningful work, but same as younger individuals

Source: Maestas, Mullen, Powell, Wachter, and Wenger (2018), "The value of working conditions in the United States and implications for the structure of wages," NBER w25204.

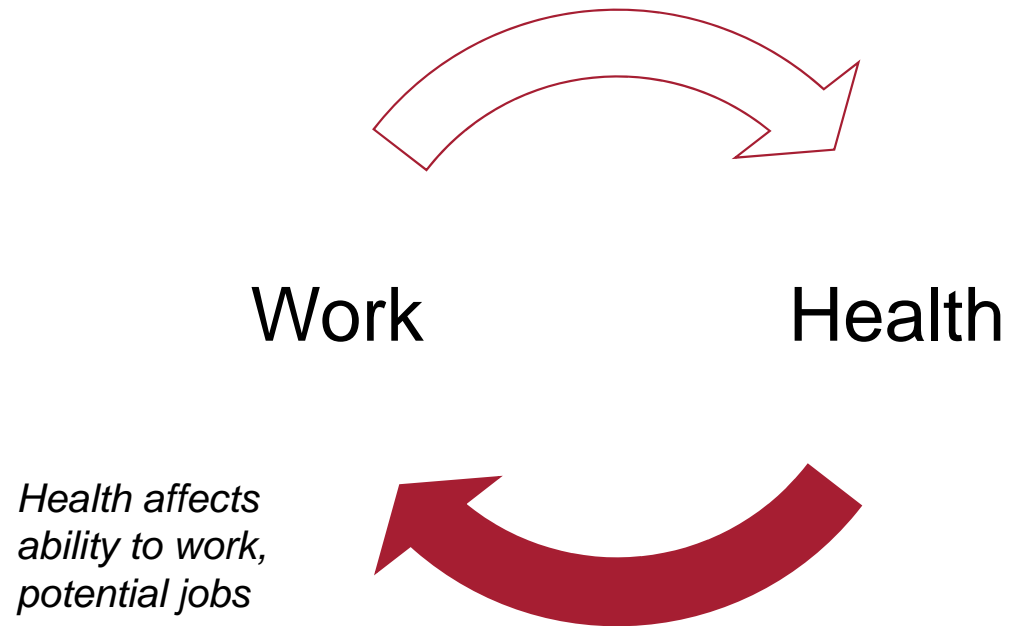
38% of Older Non-workers Would Return to Work for the “Right” Opportunity



What job attributes are important or essential?

- Control over schedule (80%)
- The right number of hours (80%)
- Control over the pace of work (80%)
- Lack of physical tasks (62%)
- Work autonomy (77%)
- Ability to provide for self financially (54%)

Complex Relationship between Work and Health



What Does It Mean to Be Able to Work?

- In order to work, one must be able to do a(t least one) **job**
 - A **job** is a bundle of **tasks**, or activities, that workers agree to perform in exchange for a wage (Autor, Levy and Murnane, 2003; Yamaguchi, 2012)
 - **Tasks** require **knowledge**, **skills** and **abilities** in order to perform them.
 - **Knowledge** — “sets of facts and principles needed to address problems and issues that are part of your job”
 - **Skill** — “the ability to perform a task well... usually developed over time through training and experience”
 - **Ability** — “an enduring talent that can help a person do a job”
- [Source: O*NET taxonomy]*

O*NET Rates Occupations on 52 Abilities in 4 Domains of Function

Cognitive

Oral Comprehension
Written Comprehension
Oral Expression
Written Expression
Fluency of Ideas
Originality
Problem Sensitivity
Deductive Reasoning
Inductive Reasoning
Information Ordering
Category Flexibility
Mathematical Reasoning
Number Facility
Memorization
Speed of Closure
Flexibility of Closure
Perceptual Speed
Spatial Orientation
Visualization
Selective Attention
Time Sharing

Psychomotor

Arm-Hand Steadiness
Manual Dexterity
Finger Dexterity
Control Precision
Multi-limb Coordination
Response Orientation
Rate Control
Reaction Time
Wrist-Finger Speed
Speed of Limb Movement

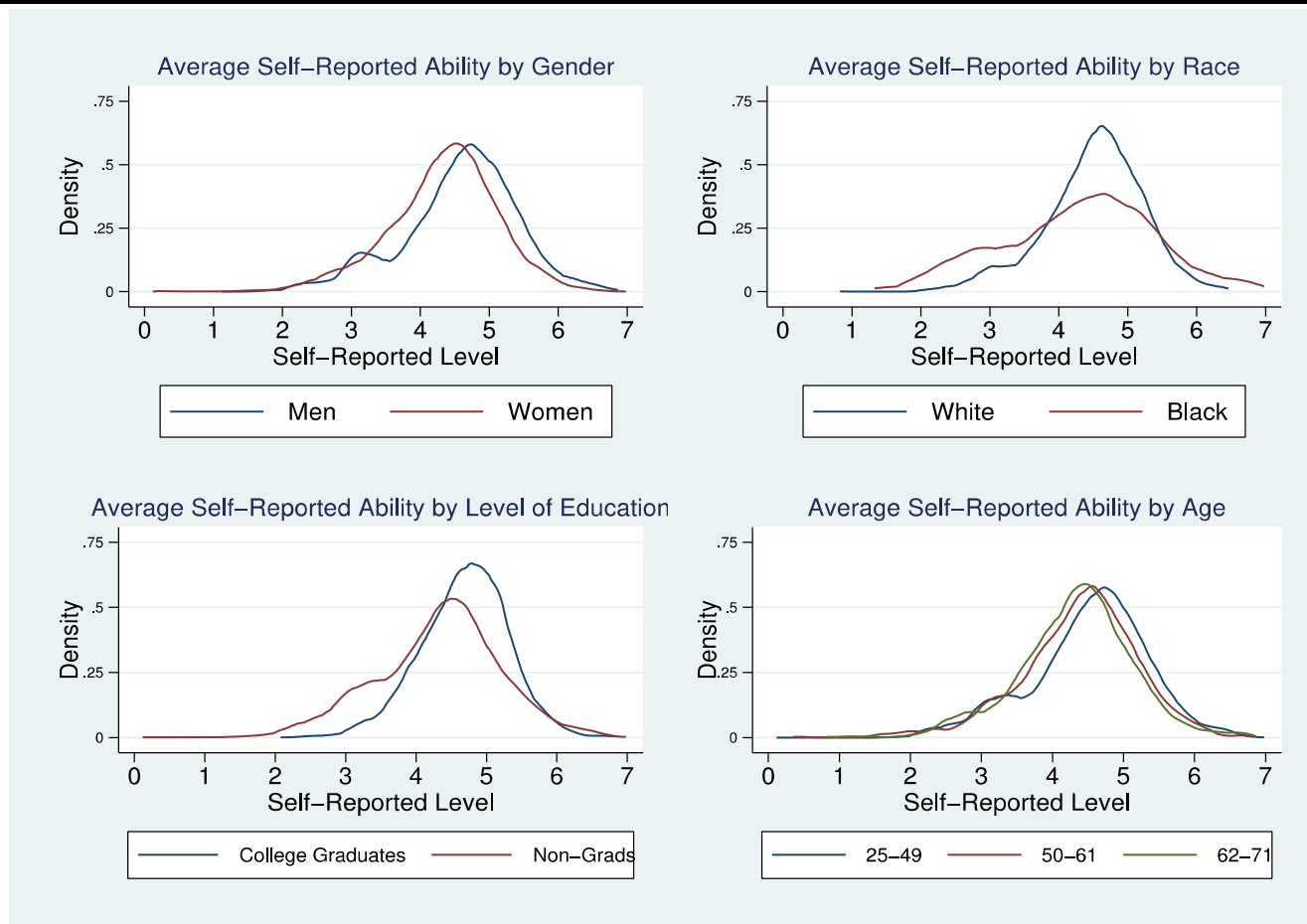
Physical

Static Strength
Explosive Strength
Dynamic Strength
Trunk Strength
Stamina
Extent Flexibility
Dynamic Flexibility
Gross Body Coordination
Gross Body Equilibrium

Sensory

Near Vision
Far Vision
Visual Color Discrimination
Night Vision
Peripheral Vision
Depth Perception
Glare sensitivity
Hearing Sensitivity
Auditory Attention
Sound Localization
Speech Recognition
Speech Clarity

Average Self-Reported Occupational Abilities by Demographic Characteristics



Source: Preliminary estimates from work in progress by Berger, Lopez, Maestas, and Mullen.

Physical and Cognitive Abilities Affect Potential Occupations, Earnings

	Age 25-49	Age 50-61	Age 62-71
# Potential Occupations (out of 963)	318.9 (16.6)	275.9 (13.9)	276.1 (14.2)
# Potential Occupations not requiring B.A./B.S.	224.3 (10.9)	193.7 (9.2)	190.5 (9.0)
# Potential Occupations requiring no more than B.A./B.S.	69.0 (4.5)	59.8 (3.9)	62.7 (4.1)
# Potential Occupations requiring Adv. Degree	25.7 (1.9)	22.3 (1.7)	22.9 (1.8)
Max Potential Earnings	\$114,460 (4,136)	\$104,519 (3,458)	\$105,315 (3,271)
Median Potential Earnings	\$35,298 (802)	\$34,119 (598)	\$34,643 (553)

Source: Preliminary estimates from work in progress by Berger, Lopez, Maestas, and Mullen.

Takeaways

- Older workers appear to be sensitive to working conditions, but working conditions are understudied—lack of data in major national surveys
- A lot of interest in work among non-workers
- Better working conditions could attract some non-workers back into the labor force, helping to offset the effects of population aging
- Older workers appear healthy enough to do many jobs; surprisingly little decay in job-related abilities with age
- Education is a constraint; 31% of potential occupations are out of reach for workers without a college degree

Thank you!
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Extra slides