

Unequal Wages for Workers with Disabilities: The Role of Occupational Structure

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OBJECTIVE

To investigate whether occupational structure can explain the disparities in pay between workers with and without disabilities.

RESEARCH QUESTIONS

1. How much of the observed disability wage gap is explained by worker characteristics?
2. How much of the remaining gap is due to differences in the type of occupation held? (Occupational sorting)
3. How much of the remaining gap is due to within-occupation wage inequality?

BACKGROUND

Figure 1: Disability and Gender Hourly Wage Gaps



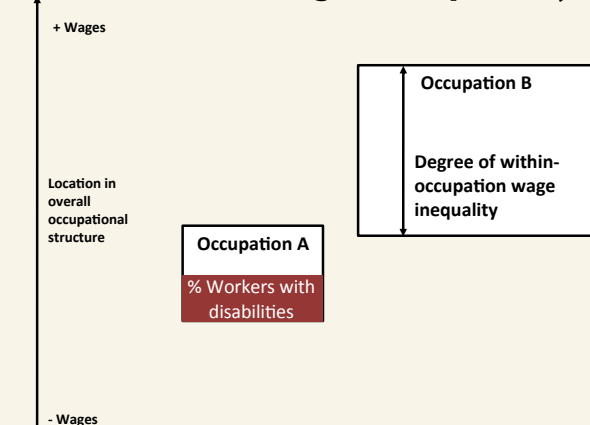
- Previous research does not consider whether and how occupational structure contributes to disability wage inequality
- Primary mechanisms that contribute to wage inequality
 - » Differences in worker characteristics
 - » Occupational structure
 - Location in overall structure (Discrimination + Self-selection)
 - Characteristics of occupations and location of workers within occupations

KEY CONCEPTS

Disability:

1. A long-lasting/permanent deviance from "normal" health, functioning and/or certain types of appearance AND
2. The social consequences of this deviance.

Figure 2: Occupational Structure & Wage Inequality



DATA & SAMPLE

- Pooled sample of the 1996, 2001, and 2004 Surveys of Income and Program Participation (Waves 1 and 5)
- Workers aged 25-64, with > \$1 in earnings; N = 306,382 (30,097 or 9.8% with disabilities)

Table 1. Definitions of Variables in the Analysis

Variable	Description
Outcome	Log hourly wage in 2007 dollars
Disability	
Any	Has had any functional limitation due to a health condition lasting ≥ 4 months
Type	Mental, Immune System, Musculoskeletal, Sensory, Other
Onset	Under age 22, between 22 and 44, between 45 and 64
Worker characteristics	
Human capital	Education (Less than HS, HS graduate, Some college, College graduate); Number of years in current occupation, Years in current occupation*
Demographics	Race/Ethnicity (Hispanic, Black, Other, White); Sex; Age (centered, in years)
Household characteristics	Lives alone; # of children under age 18; Marital status (Never married, Previously married, Currently married); Log monthly earnings of other household members
Labor market characteristics	Region (Northeast, South, Midwest, West); Lives in metro area
Panel Year	1996, 2001, 2004

- Level two unit: Census 2000 detailed three-digit occupation codes

METHODS

I. Partition the wage gap into the portions explained by

A. Worker Characteristics

$$Y_i = \beta_0 + \beta_1(\text{Dis}) + \beta_2x_i + \dots + \beta_kx_i + e_i \text{ (Eq 1)}$$

B. Occupational Sorting

$$Y_{ij} = \gamma_{00} + \beta_{1j}(\text{Dis}) + \beta_{2j}x_{ij} + \dots + \beta_{kj}x_{ij} + u_{0j} + r_{ij} \text{ (Eq 2)}$$

C. Within-Occupation Inequality

$$Y_{ij} = \gamma_{00} + \gamma_{10} + \beta_{1j}(\text{Dis}) + \beta_{2j}x_{ij} + \dots + \beta_{kj}x_{ij} + u_{0j} + u_{1j} + r_{ij} \text{ (Eq 3)}$$

II. Investigate whether remaining gap (empirical Bayes estimate) varies over:

- A. Percent with disabilities in an occupation,
- B. Within-occupation wage inequality, and
- C. Occupational mean wage

RESULTS

Figure 3. Distribution of Disability Type and Timing of Disability Onset

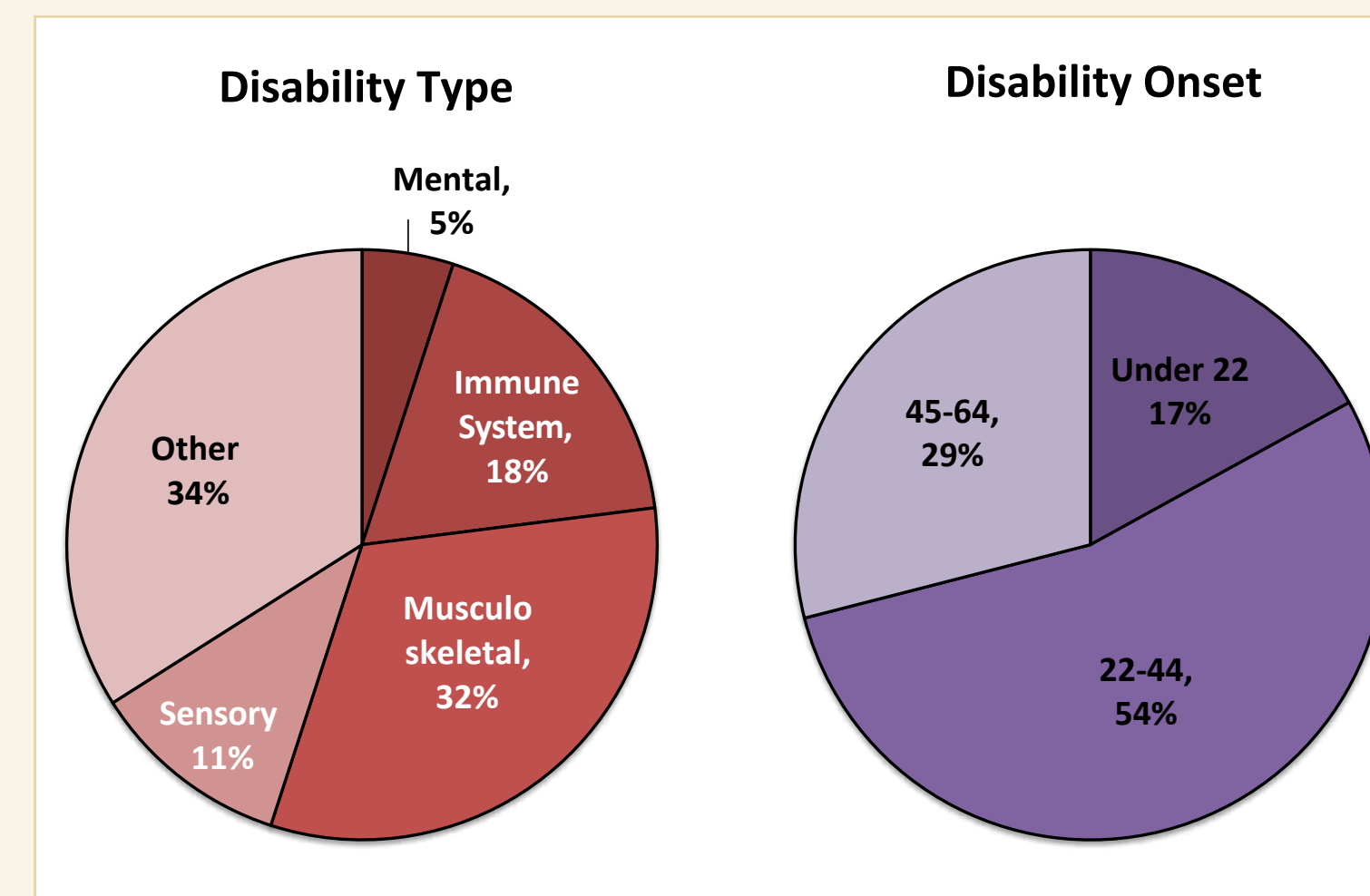


Figure 4. Share of the Disability Wage Gap Explained by Worker Characteristics and Occupational Structure, Set at Median Wage for Workers without Disabilities

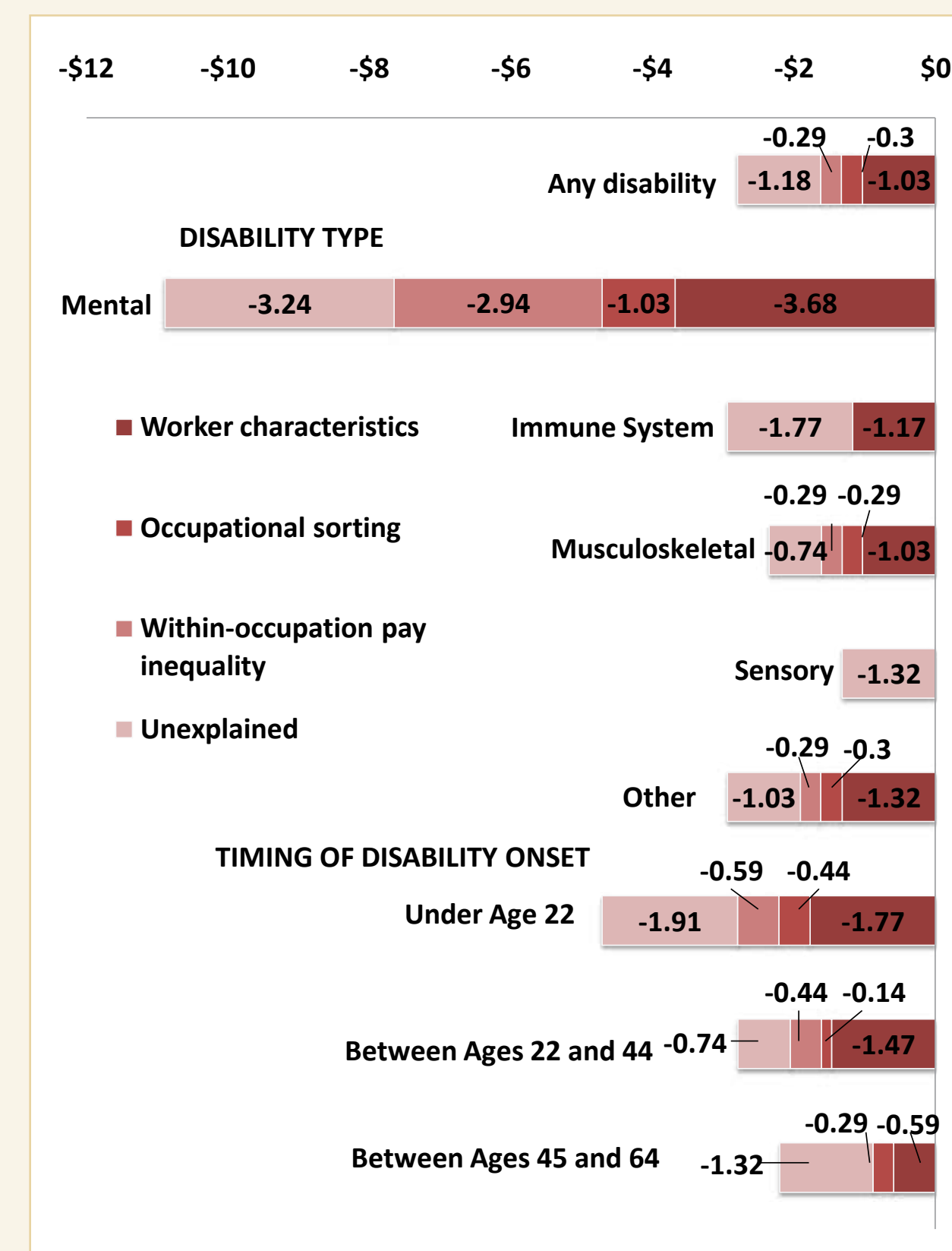
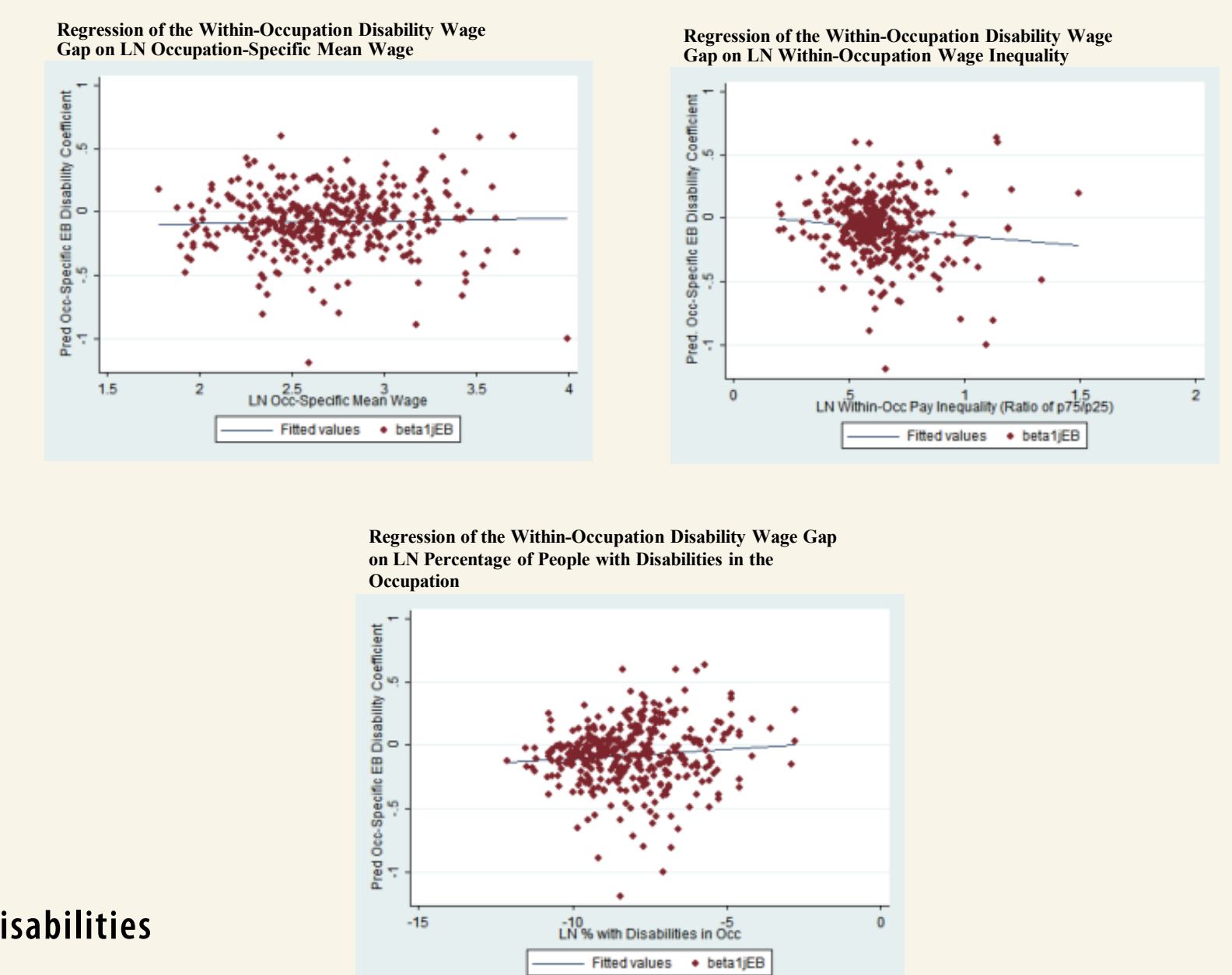


Figure 5. Regressions of EB Estimates of the Within-Occupation Disability Wage Gap on Characteristics of the Occupational Structure



DISCUSSION & CONCLUSION

- Components of the disability wage gap:
 - » 40% explained by differences in worker characteristics
 - » 10% due to occupational sorting
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 - » 40% remains unexplained
- Important variations by disability type and timing of disability onset
- This study demonstrates occupational structure contributes significantly to disability wage inequality

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